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THE
VIRGINIA
PLAN
FOR
HIGHER
EDUCATION
1989

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THE VIRGINIA SYSTEM

INTRODUCTION

The Council of Higher Education is required by law to publish a statewide plan for higher education and to revise that plan every two years. It has done so since 1974.

In 1974, the Council of Higher Education set three goals for Virginia's state-supported system of higher education: access, excellence and accountability. A fourth goal was added in 1985: to place Virginia's colleges and universities among the best systems of higher education in the nation. All of the goals continue to be valid today and, especially since 1985, we have seen Virginia higher education make rapid progress toward them.

There are several reasons for Virginia's substantial progress in higher education. Strong support from Virginia's Governors and the General Assembly has put Virginia among the leading states in appropriation increases. A number of special initiatives, including Commonwealth Centers and a unique assessment program based upon institutional objectives, have been funded to build upon particular strengths of individual colleges and universities. The Outstanding Faculty Awards program recognizes the indispensable contributions of the women and men who teach and conduct research and scholarship in our state-supported and independent institutions. The Higher Education Equipment Trust Fund has provided over $85 million in instructional equipment to the state-supported colleges and universities since 1985.

As Virginia higher education enters the last decade of the century, it is strong and vibrant. But there are uncertainties and new challenges, as we attempt to

ensure that higher education meets today's and tommorrow's needs and as we plan for the enrollment growth that is forecast for Virginia higher education toward the end of this decade and into the next.

A recent report by the Commission on the University of the 21st Century provided a vision for higher education into the next century. It is now the responsibility of the Council of Higher Education, the colleges and universities, the Governor, and the General Assembly to develop a system that contributes to the solution of problems for all Virginians by strengthening the economy, contributing to their well-being, and increasing the knowledge needed to protect the environment for future generations.

The virtues of Virginia higher education have been enumerated often enough. But it is important to emphasize, as the Council did in its 1987 revision to the *Virginia Plan*, that the bedrock of higher education is undergraduate education. State and national concerns for economic development often focus upon graduate programs, mastery of advanced technology, and research that might yield marketable products. These activities are important, but the preparation of a responsible, adaptable, and skilled citizenry continues to be the most important contribution higher education can make to the economic health of Virginia. The rest of higher education's activities follow naturally from this emphasis.

For decades, Virginia played catch-up in higher education. Like other states, it lagged far behind the nation in the money it provided to its colleges and universities, and in what it expected of them. Although we have made great progress, we still are playing catch-up in some important areas. Now is not the time to rest on our laurels. It is a time to renew commitments and to increase efforts to make the Virginia system of higher education among the best in the nation.

Those persons responsible for Virginia higher education have to think about tomorrow in everything they do. Copying old models will not suffice to prepare for the next century. In this revision of the *Virginia Plan for Higher Education*, the Council proposes actions that will continue the Commonwealth's progress. We also look at some of the issues, including the loss of faculty through retirement, that the state and its leaders will encounter in the early years of the next century.

We thank the leaders of Virginia for supporting higher education so well, especially during the last few years. Our efforts are yielding results. We must continue our progress in the years ahead.

Joan S. Jones
Chairman
State Council of Higher
Education for Virginia

THE
VIRGINIA
SYSTEM
OF HIGHER
EDUCATION

A STATISTICAL
PROFILE

The Virginia system of higher education includes 39 state-supported institutions and 45 independent institutions, nine of which are proprietary institutions that award degrees. The system also has 35 institutions of higher education whose principal campuses are located outside the Commonwealth but are approved to offer courses and degree programs within the state. In addition, there are more than 150 other institutions, mostly proprietary schools, that provide postsecondary training to Virginia students and offer certificates or diplomas to their graduates.

One special characteristic of the Virginia system is its diversity. There are state-supported and independent institutions which admit only a small percentage of applicants. There are other institutions that provide access to virtually all citizens who can benefit from attendance.

The Virginia Plan for Higher Education concentrates on the 84 degree-granting institutions which have been chartered or established by statute in the Commonwealth. This chapter provides an overview of the colleges and universities that collectively form one of the most diverse—and increasingly excellent—systems of higher education in the nation.

Higher Education in Virginia and the Nation

Virginia's state-supported system of higher education enrolled more than 287,000 headcount students in Fall 1989. The system's annual full-time-equivalent enrollment, projected to exceed 200,000 for the regular session, is the 11th largest public system in the nation.

Virginia's independent system is growing rapidly, too. Approximately 57,000 headcount students were enrolled in it in Fall 1989.

In the South, only the state systems in Texas, Florida, and North Carolina enroll more students than Virginia's state-supported system. Nationally, only California, Texas, New York, Illinois, Michigan, Ohio, Florida, Pennsylvania, North Carolina, and Wisconsin enroll more students in their state systems.

About 84 percent of all students enrolled in higher education in Virginia are in the state-supported institutions. Nationally, approximately 75 percent of the students in each state attend that state's public institutions.

The state has a relatively large percentage of its total population enrolled in public higher education. Measured on this basis, Virginia recently ranked 19th in the nation, with 3.07 percent of its total population enrolled in the two and four-year public institutions. This ranking placed Virginia well above the national average of 2.76 percent. When the independent institutions are included in this measurement, Virginia ranked 22nd in the nation (at 3.68 percent), ahead of all other Southern states except North Carolina (at 3.76 percent).

The Commonwealth's residents rank 11th in the nation in personal disposable income, based on 1988-89 data. In that year, Virginia's disposable income was estimated to be more than $82.5 billion. The state's potential tax capacity per capita in 1987 was $1,624, as determined by a national "representative tax system" model applied identically to all 50 states. This amount ranked Virginia 17th in the nation, up from 26th in 1985.

Some comparative indices of Virginia's continuing progress in higher education are the following:

- During the past 15 years, the growth of the Virginia system has been remarkable. The system has added more than 75,000 students, and its overall quality has improved. Some Virginia colleges and universities have become known as the best in the nation, while others are "best buys."

- Grants to Virginians attending the state's independent colleges and universities have increased from $500 in 1978-79 to $1500 in 1989. Financial aid for needy students in the state-supported institutions has grown from $3.8 million to $19.4 million over the same period. The statewide need-based program for students in public and independent higher education has doubled, and a new work-study program has been started. Funding for Eminent Scholars, a program that matches income from endowment with state money to attract and retain outstanding faculty, has increased from $755,040 in 1979 to $5.6 million in 1989. Overall, state general funds for higher education in Virginia more than doubled in a decade, from $871,065,570 in the 1978-80 budget to $2.128 billion in 1988-90.

- Virginia currently ranks 11th in total appropriations for higher education. It is one of 11 states that appropriate more than $1 billion per year for higher education.

- In 1989-90, Virginia had the 7th highest 2-year percentage increase in funding among the states and the 8th highest increase over the past 10 years.

- From 1978 to 1988, average salaries for full-time faculty in Virginia's state-supported institutions increased approximately 119 percent, the highest among the 15 states that are members of the Southern Regional Education Board.

Higher Education in Virginia

Enrollment—The 84 institutions included in the Virginia Plan enrolled approximately 344,000 students in Fall 1989. This is an increase of 7.4 percent over Fall 1988.

The 1960s and early 1970s were years of unprecedented growth for public higher education in Virginia as well as nationally. Between 1965 and 1975, enrollment in the state-supported institutions more than tripled, from about 60,000 to almost 200,000 students. The growth was the result of the post-war "baby boom" and a determined effort on the part of the Commonwealth to make higher education accessible to all students who could benefit from it. The middle of the 1960s saw the development of the Virginia Community College System, which now enrolls approximately 45 percent of all the students who attend Virginia's public institutions.

Since 1975, enrollment growth has been much slower. But unlike the situation in some states that have had enrollment declines, the enrollment trend in Virginia has been consistently upward. This has been true even though the number of high school graduates in Virginia has declined over the past twelve years.

Fortunately, Virginia is among the states that have had continuing increases in population throughout most of the 1980s, so any decline in the traditional college-age population has not resulted in a uniform decrease in Virginia's higher education enrollment. On the contrary, there have been important areas of enrollment growth throughout the Commonwealth.

As noted earlier, more than 287,000 students were enrolled in Virginia's 39 state-supported institutions this fall. Altogether, these institutions had a 6.4 percent enrollment increase. About 17,200 students, were added; most of them (approximately 13,000) in the two-year colleges. The enrollment, by institution, and the characteristics of the students are shown in Table 1.

Table 1

Enrollments* at Virginia's State-Supported Institutions, Fall 1989

Institution	Full-Time	Part-Time	Virginia Residents	Non-Virginia Residents	Men	Women	Total
Christopher Newport College	2,758	2,074	4,409	423	1,935	2,897	4,832
Clinch Valley College	975	619	1,510	84	625	969	1,594
George Mason University	10,770	8,977	17,183	2,564	8,816	10,931	19,747
James Madison University	9,606	1,601	8,871	2,336	4,858	6,349	11,207
Longwood College	2,833	309	2,924	218	992	2,150	3,142
Mary Washington College	2,763	770	2,919	614	1,103	2,430	3,533
Norfolk State University	6,419	1,869	5,677	2,611	3,009	5,279	8,288
Old Dominion University	10,522	5,717	13,160	3,079	7,799	8,440	16,239
Radford University	8,203	1,352	8,351	1,204	3,541	6,014	9,555
University of Virginia	16,518	4,361	13,760	7,119	10,142	10,737	20,879
Virginia Commonwealth University	13,403	7,988	19,243	2,148	8,768	12,623	21,391
Virginia Military Institute	1,312	0	721	591	1,312	0	1,312
Virginia Polytechnic Institute	21,455	3,471	17,667	7,259	14,780	10,146	24,926
Virginia State University	3,150	923	2,497	1,576	1,632	2,441	4,073
William and Mary	6,499	1,043	5,002	2,540	3,507	4,035	7,542
TOTAL - FOUR-YEAR INSTITUTIONS	**117,186**	**41,074**	**123,894**	**34,366**	**72,819**	**85,441**	**158,260**
Blue Ridge Community College	704	1,810	2,487	27	972	1,542	2,514
Central Virginia Community College	995	3,126	4,081	40	1,876	2,245	4,121
Dabney S. Lancaster Community College	584	864	1,404	44	567	881	1,448
Danville Community College	1,022	2,033	2,960	95	1,326	1,729	3,055
Eastern Shore Community College	187	303	487	3	162	328	490
Germanna Community College	649	1,748	2,348	49	779	1,618	2,397
J. Sargeant Reynolds Community College	2,526	8,454	10,790	190	4,278	6,702	10,980
John Tyler Community College	884	4,206	4,311	779	2,296	2,794	5,090
Lord Fairfax Community College	701	2,023	2,627	97	979	1,745	2,724
Mountain Empire Community College	1,023	1,851	2,832	42	1,242	1,632	2,874
New River Community College	1,485	2,134	3,565	54	1,474	2,145	3,619
Northern Virginia Community College	8,746	25,793	31,741	2,798	15,549	18,990	34,539
Patrick Henry Community College	569	1,402	1,945	26	780	1,191	1,971
Paul D. Camp Community College	235	1,037	1,257	15	414	858	1,272
Piedmont Virginia Community College	836	3,409	4,136	109	1,613	2,632	4,245
Rappahannock Community College	331	1,535	1,830	36	636	1,230	1,866
Southside Virginia Community College	815	1,756	2,543	28	1,021	1,550	2,571
Southwest Virginia Community College	1,571	4,306	5,568	309	3,668	2,209	5,877
Thomas Nelson Community College	1,665	5,643	6,872	436	3,144	4,164	7,308
Tidewater Community College	4,511	13,838	16,584	1,765	7,914	10,435	18,349
Virginia Highlands Community College	925	1,255	2,059	121	844	1,336	2,180
Virginia Western Community College	1,658	5,000	6,573	85	2,629	4,029	6,658
Wytheville Community College	834	1,213	2,013	34	675	1,372	2,047
TOTAL - COMMUNITY COLLEGES	**33,456**	**94,739**	**121,013**	**7,182**	**54,838**	**73,357**	**128,195**
Richard Bland College	768	401	1,135	34	467	702	1,169
TOTAL - TWO-YEAR INSTITUTIONS	**34,224**	**95,140**	**122,148**	**7,216**	**55,305**	**74,059**	**129,364**
TOTAL - ALL STATE INSTITUTIONS	**151,410**	**136,214**	**246,042**	**41,582**	**128,124**	**159,500**	**287,624**

*On- and Off-Campus Students

Independent college enrollments in Virginia also grew substantially during the 1960s and early 1970s. But their growth was much slower than that of the public institutions. The independent institutions' percentage of the total system enrollment dropped from approximately 33 percent in 1960 to about 13 percent in 1978. Since that time, however, the percentage has edged back up, and in the past two years, these institutions, as a group, have had dramatic growth. They now enroll about 16.5 percent of the total students in the system. The historical growth of the independent institutions and their current enrollments are shown in Tables 2 and 3. In Fall 1989, these institutions had a 12.9 percent increase over their Fall 1988 headcount. Altogether, the institutions have an estimated 56,938 students this year, about 2,500 more than in 1988.

A precipitous decline in the traditional college-age population between 1990 and 1995 will mean that even in Virginia the early 1990s will be a period of little growth and possibly some decreases in enrollment at some institutions. However, beginning in 1995, Virginia is expected to have steady, and in some years, dramatic growth in its higher education system. Even now one public institution, in particular, George Mason University, continues to have accelerating growth because of rapid development in northern Virginia.

Table 2

Independent College and University Enrollment* 1960-1989

1960	16,810 (Est.)
1970	28,030
1975	27,908
1978	31,618
1980	34,224
1982	36,400
1985	40,381
1987	43,464
1989	56,938**

*On- and Off-Campus Students

Unverified actual enrollments were used for Liberty University's headcount figures due to non-submission of the SCHEV B2/B3 for Fall 1989. SCHEV B2/B3 figures for the Fall of 1988 were used for Notre Dame Pontifical Catechetical Institute due to non-submission of Early Estimates and the SCHEV B2/B3 for Fall of 1989.

Table 3

Headcount Enrollments* at Independent Institutions, Fall 1989

	Full-Time	Total
Averett College	980	1,216
Bluefield College	374	435
Bridgewater College	950	982
Christendom College	173	174
Commonwealth College - Hampton	402	402
Commonwealth College - Norfolk	393	393
Commonwealth College - Va. Beach	683	693
CHRV - College of Health Sciences	121	215
Eastern Mennonite College	946	1,071
Emory and Henry College	814	853
EVMS - Med. Col. of Hampton Roads	389	439
Ferrum College	1,168	1,238
Hampden-Sydney College	943	944
Hampton University	4,829	5,342
Hollins College	909	1,108
Institute of Textile Technology	30	30
Liberty University**	10,800	16,605
Lynchburg College	1,843	2,559
Mary Baldwin College	1,018	1,130
Marymount University	1,443	2,934
National Business College	931	1,055
Notre Dame Pont. Catech. Inst.***	27	51
Presbyterian School of Christian Ed.	93	104
Protestant Episcopal Theological Sem.	171	213
Randolph-Macon College	1,104	1,118
Randolph-Macon Woman's College	690	738
Regent University	513	787
Roanoke College	1,459	1,696
Saint Paul's College	499	519
Shenandoah College	684	1,016
Southern Seminary College	280	285
Sweet Briar College	565	579
Union Theological Seminary	186	186
University of Richmond	3,271	4,909
Virginia College	3	33
Virginia Intermont College	455	521
Virginia Seminary and College	16	40
Virginia Union University**	1,184	1,365
Virginia Wesleyan College	1,052	1,280
Washington and Lee University	1,997	2,008
TOTAL-INDEPENDENT INSTITUTIONS	**44,238**	**56,938**

*On- and Off-Campus Students

**Unverified actual enrollments were used for Liberty University figures due to non-submission of the SCHEV B2/B3 for Fall 1989.

***SCHEV B2/B3 for Fall of 1988 were used for Notre Dame Pontifical Catechetical Institution due to non-submission of the Early Estimate report and the SCHEV B2/B3 for Fall of 1989.

The projections in Table 4 are based on the best demographic data available in late 1989. While they make no attempt to reflect changes in enrollment patterns which might occur if funding for various federal and state financial aid programs changes significantly, they do indicate an overall upward trend for the next two years. It should be noted that the projections do not show future off-campus enrollments for Virginia's institutions. Currently, over 20,000 students are enrolled in courses and programs offered away from institutions' principal campuses.

At best, the indicators of student preparation for college in Virginia are mixed. Standardized tests administered in the elementary-secondary grades continue to show marked improvements in student scores. High school graduation requirements also have become more rigorous in the past few years. But while scores on the Scholastic Aptitude Test (SAT) taken by all students planning to enter senior institutions in Virginia climbed between 1981 and 1986, they have dropped slightly over the last three years to 902, one point below the national average.

Part-Time Students—As Virginia's enrollment has become less dependent on 18- to 21-year olds during the last several years, the number of part-time, older students has increased significantly. Table 5 contrasts the change in the mix of full-time and part-time students attending the state-supported institutions between 1970 and 1989.

Table 4
Headcount and Full-Time Equivalent (FTE) Enrollments*: Actual, Estimated and Projected (As of December 18, 1989)

Institution	1988 Actual Fall Headcount	1988-89 Actual FTE	1989 Actual Fall Headcount	1989-90 Estimated FTE	1990 Projected Fall Headcount	1990-1991 Projected FTE	1991 Projected Fall Headcount	1991-1992 Projected FTE
Christopher Newport College	4,592	2,976	4,827	3,281	5,047	3,614	5,271	3,970
Clinch Valley College	1,202	1,005	1,163	982	1,244	1,055	1,318	1,120
George Mason University	18,655	11,994	19,443	12,560	20,171	13,075	21,185	13,750
James Madison University	10,525	10,123	10,709	10,249	10,750	10,282	10,790	10,306
Longwood College	2,955	2,942	3,138	3,082	3,182	3,098	3,221	3,117
Mary Washington College	3,427	2,954	3,533	3,029	3,712	3,191	3,803	3,292
Norfolk State University	7,747	6,773	7,728	7,033	7,866	7,102	7,866	7,102
Old Dominion University	14,911	11,649	14,702	11,476	15,178	11,746	15,545	12,012
Radford University	8,612	7,907	9,175	8,389	9,196	8,426	9,045	8,282
University of Virginia	17,610	17,241	17,910	17,297	17,764	17,336	17,825	17,408
Virginia Commonwealth University	19,624	14,821	20,390	15,423	20,453	15,500	20,492	15,562
Virginia Military Institute	1,285	1,436	1,312	1,463	1,300	1,463	1,300	1,463
Virginia Polytechnic Institute	22,361	21,885	22,922	21,864	22,700	22,100	22,800	22,200
Virginia State University	3,411	3,098	3,625	3,282	3,633	3,346	3,657	3,368
William and Mary	7,279	6,894	7,388	7,029	7,361	6,999	7,394	7,012
TOTAL - FOUR-YEAR INSTITUTIONS	**144,196**	**123,698**	**147,965**	**126,439**	**149,557**	**128,333**	**151,512**	**129,964**
Blue Ridge Community College	1,806	908	1,904	957	1,904	957	1,904	957
Central Virginia Community College	3,333	1,572	3,689	1,765	3,689	1,765	3,689	1,765
Dabney S. Lancaster Community College	1,277	727	1,448	786	1,448	786	1,448	786
Danville Community College	2,230	1,365	2,461	1,448	2,461	1,448	2,461	1,448
Eastern Shore Community College	456	242	490	256	490	256	490	256
Germanna Community College	1,332	704	1,498	778	1,498	778	1,498	778
J. Sargeant Reynolds Community College	9,643	4,190	10,825	4,316	10,825	4,316	10,825	4,316
John Tyler Community College	3,207	1,416	3,444	1,640	3,444	1,640	3,444	1,640
Lord Fairfax Community College	1,983	941	2,182	1,110	2,182	1,110	2,182	1,110
Mountain Empire Community College	1,961	1,089	2,247	1,124	2,247	1,124	2,247	1,124
New River Community College	2,616	1,643	3,075	1,921	3,075	1,921	3,075	1,921
Northern Virginia Community College	30,951	15,348	33,469	16,900	33,469	16,900	33,469	16,900
Patrick Henry Community College	1,600	862	1,855	927	1,855	927	1,855	927
Paul D. Camp Community College	883	446	1,078	502	1,078	502	1,078	502
Piedmont Virginia Community College	3,244	1,438	3,378	1,488	3,378	1,488	3,378	1,488
Rappahannock Community College	1,072	545	1,180	562	1,180	562	1,180	562
Southside Virginia Community College	1,657	961	1,737	962	1,737	962	1,737	962
Southwest Virginia Community College	3,262	1,819	4,476	1,909	4,476	1,909	4,476	1,909
Thomas Nelson Community College	6,153	2,924	6,681	3,162	6,681	3,162	6,681	3,162
Tidewater Community College	16,204	8,021	17,799	8,964	17,799	8,964	17,799	8,964
Virginia Highlands Community College	1,852	1,110	2,003	1,135	2,003	1,135	2,003	1,135
Virginia Western Community College	6,555	2,767	6,353	2,829	6,353	2,829	6,353	2,829
Wytheville Community College	1,843	1,088	2,038	1,171	2,038	1,171	2,038	1,171
TOTAL - COMMUNITY COLLEGES	**105,120**	**52,126**	**115,310**	**56,612**	**115,310**	**56,612**	**115,310**	**56,612**
Richard Bland College	943	747	1,029	849	1,086	873	1,116	897
TOTAL - TWO-YEAR INSTITUTIONS	**106,063**	**52,873**	**116,339**	**57,461**	**116,396**	**57,485**	**116,426**	**57,509**
TOTAL - ALL STATE INSTITUTIONS	**250,259**	**176,571**	**264,304**	**183,900**	**265,953**	**185,818**	**267,938**	**187,473**

*On-Campus Students, Regular Session Only

Table 5

Full-Time and Part-Time Fall Headcount*

Fall 1970 and Fall 1989 at State-Supported Institutions (As of December 18, 1989)

	Two-Year Institutions			Four-Year Institutions			All Institutions		
Fall	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
1970									
Number	16,076	12,223	**28,299**	62,924	16,161	**79,085**	79,000	28,384	**107,384**
Percent	56.81	43.19	**100.00**	79.57	20.43	**100.00**	73.57	26.43	**100.00**
1989									
Number	34,224	95,140	**129,364**	117,186	41,074	**158,260**	151,410	136,214	**287,624**
Percent	26.46	73.54	**100.00**	74.05	25.95	**100.00**	52.64	47.36	**100.00**
Percent Increase Since 1970	112.89	678.37	**357.13**	86.23	154.16	**100.11**	91.66	379.90	**167.85**

*On- and Off-Campus Students

In 1970, only slightly more than 28,000 students were enrolled part-time (26 percent of the total enrollment). By Fall, 1989 over 136,000 students (about 47 percent of the total enrollment) were part-time and over 73 percent of the students who enrolled at two-year institutions did so part-time.

The percentage of part-time students in the senior colleges and universities declined between 1980 and 1985, shifted upward again in the mid-80s, and then dropped in 1989. In the 1989-90 academic year, about 26 percent of these students are part-time.

The percentage of part-time students for all institutions also declined in 1989. Forty-eight percent of the total enrollment in the Virginia public system was part-time in 1980. By 1982, the percentage had declined to 46; by 1985, it had fallen to 44.5 percent. By Fall 1987, 49 percent of the total enrollment in the public institutions was part-time, a new high for the system, but the percentage had dropped again to 47 by Fall 1989.

Age Shifts—The age shift in all institutions has had a significant effect on the character of the institutions. In 1989, as noted in Table 6, approximately 32 percent of Virginia's enrollment in senior state-supported institutions was comprised of students beyond the age of 24. This is approximately the same percentage as in 1987. In the community colleges, well over half (about 56 percent) of all students were 25 or older. For the entire public system, about 43 percent were older than the traditional college age, a slight decline over the 44 percent in 1987. But the percentage continues to indicate that as the "baby-boom" generation grows older, its members continue to return for additional college work.

Minority Students—Although Virginia has attempted to provide access to higher education for all citizens, during the last 15 years the Commonwealth has placed special emphasis on enrolling additional numbers of minority students. As will be observed in Table 7, minority enrollment in the state-supported institutions rose almost 175 percent between 1973 and 1989. At the same time, the minority percentage of

Table 6

Headcount* Enrollment by Age
State-Supported Institutions, Fall 1989 (As of December 18, 1989)

Type of Institution	Under 18	18-21	22-24	25-34	35-44	45-59	60 & Over	Unknown	Total
Four-Year Institutions									
Number	1,065	79,752	26,362	30,363	14,049	5,408	593	668	**158,260**
Percent	0.67	50.39	16.66	19.19	8.88	3.42	0.37	0.42	**100.00**
Two-Year Institutions									
Number	2,401	39,350	15,158	37,761	22,803	10,573	1,318	0	**129,364**
Percent	1.86	30.42	11.72	29.19	17.63	8.17	1.02	0.00	**100.00**
TOTAL STATE-SUPPORTED									
NUMBER	**3,466**	**119,102**	**41,520**	**68,124**	**36,852**	**15,981**	**1,911**	**668**	**287,624**
PERCENT	**1.21**	**41.41**	**14.44**	**23.69**	**12.81**	**5.56**	**0.66**	**0.23**	**100.00**

*On- and Off-Campus Students

Table 7

Minority Headcount Enrollment* for 1973 and 1989 at State-Supported Institutions
(As of December 18, 1989)

	1973			1989		
Type of Institution	Minority**	White	Total	Minority**	White	Total
Four-Year Institutions	14,007	82,046	**96,053**	33,226	125,034	**158,260**
Percent	14.6	85.4	**100.00**	21.0	79.0	100.0
Two-Year Institutions	6,726	46,589	**53,315**	23,212	106,152	**129,364**
Percent	12.6	87.4	**100.0**	17.9	82.1	**100.0**
TOTAL	**20,733**	**128,635**	**149,368**	**56,438**	**231,186**	**287,624**
PERCENT	**13.9**	**86.1**	**100.0**	**19.6**	**80.4**	**100.0**

*On- and Off-Campus Students
**Includes non-resident aliens

the total student enrollment has increased from 13.9 percent in 1973 to 19.6 percent in 1989.

Nationally, the participation rate for minority students in higher education has declined over the past eight years. Virginia's participation rate is above the national average, due to the Commonwealth's strong commitment to increasing its minority enrollment and to the concerted efforts of all of the institutions. But the rate, compared to that for white students, lags what it should be. For instance, the college-going rate of black students graduating from high school has remained stable since 1978, at about 31 percent, while the rate for white students has increased from 40 to 51 percent. Virginia continues to seek new ways to achieve a significant increase in the number of minority students enrolling in its colleges and universities.

Appropriations—Table 8 shows the appropriations made to the state-supported institutions for operating expenses from the 1976-78 biennium through the 1988-90 biennium. Since 1974, higher education appropriations as a percentage of the total state budget have increased from about 12 percent to 15.5 percent. Much of the increase can be attributed to a decision several years ago to require students and their parents to pay a greater share of the cost of education through tuition increases (non-general fund appropriations).

Despite its size and relative affluence, as late as 1983-84, Virginia ranked 27th in the nation in per capita spending for higher education, at $111.21 per person. For every one thousand dollars of personal income, Virginia spent $9.18 for higher education, placing it 34th in the nation. Appropriations per capita increased to $157.55 for the 1986-87 fiscal year, ranking Virginia 13th in the nation, while appropriations per $1,000 of personal income increased to $10.22, giving Virginia a ranking of 25th nationally. These data continued to improve in 1989-90 when Virginia ranks 10th nationally in per capita appropriations and 19th in appropriations per $1,000 of personal income. But the state has yet to reach the national average on several of the fiscal indicators used to compare state funding efforts.

Educational Facilities—The amount of space at the state-supported institutions that is used for instruction, research, and public service nearly doubled

Table 8
Biennial Appropriations for Operating Expenses at State-Supported Institutions

	1978-80	1980-82	1982-84*	1984-86	1986-88	1988-90	10 Year % Increase
TOTAL APPROPRIATIONS							
Total State Appropriations	9,196,899,108	11,735,178,265	13,343,277,485	15,982,017,906	19,372,366,723	23,337,766,047	154
% Increase Over Previous Biennium	25.1	27.6	13.7	19.8	21.2	20.5	
Higher Education Institutions**	1,238,530,480	1,636,203,370	2,023,529,710	2,427,036,004	3,042,777,246	3,615,975,896	192
% Increase Over Previous Biennium	27.6	32.1	23.7	19.9	25.4	18.8	
Higher Education as % of Total	13.5	13.9	15.2	15.2	15.7	15.5	
GENERAL FUND APPROPRIATIONS							
Total State General Fund Appropriations	4,484,230,063	5,533,340,990	6,375,457,290	7,894,874,659	9,543,063,715	11,770,843,066	162
% Increase Over Previous Biennium	23.0	23.4	15.2	23.1	21.6	23.3	
% of Total Appropriation	48.8	47.2	47.8	49.1	49.3	50.4	
Higher Education Institutions**	692,251,125	855,233,300	985,494,720	1,186,117,630	1,450,595,135	1,729,400,500	150
% Increase Over Previous Biennium	32.1	23.5	15.2	20.4	22.3	19.2	
% of Higher Education Appropriation	55.9	52.3	48.7	48.9	47.7	47.8	
Higher Education as % of Total General Funds	15.4	15.5	15.5	15.1	15.2	14.7	
NONGENERAL FUND APPROPRIATIONS							
Total State Nongeneral Fund Appropriations	4,712,669,045	6,201,837,275	6,967,820,195	8,132,143,247	9,829,303,008	11,566,922,981	145
% Increase Over Previous Biennium	27.1	31.6	12.4	16.7	20.91	17.7	
% of Total Appropriation	51.2	52.8	52.2	50.9	50.7	49.6	
Higher Education Institutions**	546,299,355	780,970,070	1,038,034,990	1,240,918,374	1,592,182,111	1,886,575,396	245
% Increase Over Previous Biennium	22.4	43.0	32.9	19.5	28.3	18.5	
% of Higher Education Appropriation	44.1	47.7	51.3	51.1	52.3	52.2	
Higher Education as % of Total Nongeneral Funds	11.6	12.6	14.9	15.3	16.2	16.3	

*Adjustments made to salaries, merit, and the retirement plan in the 1983 session are not reflected in the higher education institutional appropriations. The total state adjustment is made through central appropriations; however, institutions' specific amounts are not available.

**Excludes the medical school hospitals at the University of Virginia and Virginia Commonwealth University, the Extension Division and the Research Division at Virginia Polytechnic and State University, and the State Council of Higher Education and all supplemental programs; the Division of Continuing Education and Public Service Bureaus and the Virginia Associated Research Campus merged with the main agencies (the University of Virginia and the College of William and Mary, respectively) during the 1984-86 biennium. Prior to this, these agencies were excluded from the summary. The Virginia Community College System Office, the Virginia Institute of Marine Science, the Innovative Technology Authority (funding began in 1984-86), and the VCBA-HEETF (funding began in 1986-88) are included. CENTRAL APPROPRIATIONS ARE EXCLUDED.

between 1966 and 1976 as Virginia's Community College System was being built. Since that time, the Commonwealth has provided additional space through the passage of a bond referendum in 1978 and substantial biennial appropriations (approximately $1 billion) for capital outlay over the past ten years. However, additional space is needed, primarily for instructional support, research, and libraries. The doctoral institutions will require most of the total additional space for these activities.

Systemwide, the institutions' additional space needs are projected to total about 1 million square feet by 1991-92. Although certain institutions (particularly some four-year colleges and universities) will have space excesses, the system as a whole projects a net additional need in most types of educational and general space.

Curricula—The number of degrees awarded at Virginia's public institutions increased 19 percent between 1978-79 and 1988-89 (Table 9). During this time, the number of degrees conferred by the state-supported institutions, as a group, rose from 28,762 to 34,222. More students than ever before are taking courses to improve their job skills, to prepare to transfer to other institutions, or simply to enrich their lives. Many of them do not intend to work toward degrees. Yet, there has been a 2,600 increase in total degrees awarded annually between 1985-86 and 1988-89.

Table 9

Number of Degrees* Conferred by Virginia's State-Supported Institutions

Type	1978-79 Degrees	1988-89 Degrees	Percent Increase
Four-Year	23,030	27,501	19
Two-Year	5,732	6,721	17
Total	28,762	34,222	19

*Includes associate, baccalaureate, master's, first professional, and doctoral degrees.

Table 10

Total Degrees Conferred in Selected* Disciplines at Senior State-Supported Institutions, 1988-89

Disciplines	Degrees
Business and Management	5,660
Education	3,227
Social Sciences	3,198
Letters (English, Literature, Classics)	1,522
Health and Allied Health	1,446
Psychology	1,231

*Disciplines in which 1,000 degrees were awarded at the bachelor's, master's, and doctoral level in a single year.

Table 10 is especially important because it shows, according to the number of degrees conferred in various disciplines, the academic emphases of the state-supported institutions in 1988-89 and, by inference, student academic interests as well. Of the 27,501 degrees awarded by the senior institutions, 5,660 (20 percent of the total) were in Business and Management.

The number of students receiving degrees in business reflects the rapid growth in this field in recent years and continues a trend begun in 1980-81 when, for the first time, the largest number of degrees were conferred in an area other than Education.

Of particular interest are the degrees-conferred trends among the technological disciplines. Table 11 shows the numbers in five areas. The largest numbers by far are in Engineering Sciences. Over the past three years, the number of degrees conferred in the physical sciences has dropped precipitously, while the numbers in mathematics and even computer science also have declined.

In 1988-89, Virginia's independent institutions conferred 8,214 degrees at all levels. The only doctoral

Table 11

Total Degrees* Conferred in Technological Disciplines at Senior State-Supported Institutions, 1988-89

Disciplines	Degrees
Life Sciences	840
Computer Sciences	1,060
Engineering Sciences	2,416
Mathematics	413
Physical Sciences	572

*Degrees awarded at the bachelor's, master's, and doctoral level in a single year.

Table 12

Total Degrees Conferred in Selected* Disciplines at Independent Institutions, 1988-89

Disciplines	Degrees
Business and Management	2,084
Social Sciences	1,057
Education	680
Psychology	445
Theology (Philosophy, Religion, Theology)	420
Letters (English, Literature, Classics)	386
Life Sciences	284
Health and Allied Health	262
Communications	253
Arts	250

*Disciplines in which at least 200 degrees were awarded at the bachelor's, master's, and doctoral level in a single year.

degrees awarded by these institutions were in law (advanced degrees), life sciences, psychology, theology and medicine. Table 12 reflects the academic emphases of the independent institutions. Of the total degrees awarded, the largest number, 25 percent, again were in Business and Management.

Faculty—The number of faculty holding tenure in the senior state-supported institutions has increased considerably since 1975-76, when 42.2 percent of the faculty in these institutions had tenure. By 1989-90, the percentage had risen to 61 (Table 13). But the tenure percentages vary across the 15 senior institutions and they are, on the whole, within an acceptable range. It should be remembered that the State Board for Community Colleges several years ago eliminated the possibility of new faculty receiving tenure. Therefore, the percentage of tenured faculty in these institutions remains low.

Table 13

Full-Time Tenured Instructional Faculty for 9/10, 11/12 Month or Other Contracts, 1989-90

State-Supported Institutions		Instructional Faculty	Tenured Faculty	Percentage Tenured
Doctorals	George Mason University	641	359	56
	Old Dominion University	616	364	59
	University of Virginia	980	656	67
	Virginia Commonwealth University	811	500	62
	Virginia Polytechnic Institute	1,530	1,085	71
	William and Mary	449	309	69
	TOTAL DOCTORALS	**5,027**	**3,273**	**65**
Comprehensives	Christopher Newport College	126	74	59
	Clinch Valley College	49	33	67
	James Madison University	476	319	67
	Longwood College	146	88	60
	Mary Washington College	170	105	62
	Norfolk State University	491	149	30
	Radford University	394	196	50
	Virginia Military Institute	97	68	70
	Virginia State University	184	91	49
	TOTAL - COMPREHENSIVES	**2,133**	**1,123**	**53**
	TOTAL 4-YEAR COLLEGES	**7,160**	**4,396**	**61**
Community Colleges	Blue Ridge	37	7	19
	Central Virginia	62	10	16
	Dabney S. Lancaster	32	7	22
	Danville	56	19	34
	Eastern Shore	16	1	6
	Germanna	39	1	3
	J. Sargeant Reynolds	124	3	2
	John Tyler	65	16	25
	Lord Fairfax	37	0	0
	Mountain Empire	57	0	0
	New River	60	12	20
	Northern Virginia	488	45	9
	Patrick Henry	33	0	0
	Paul D. Camp	26	0	0
	Piedmont Virginia	55	0	0
	Rappahannock	23	0	0
	Southside Virginia	52	0	0
	Southwest Virginia	79	8	10
	Thomas Nelson	99	16	16
	Tidewater	262	7	3
	Virginia Highlands	57	3	5
	Virginia Western	98	30	31
	Wytheville	46	12	26
	TOTAL - VCCS	**1,901**	**197**	**10**
	Richard Bland College	32	24	75
	TOTAL - 2-YEAR COLLEGES	**1,933**	**221**	**11**
	TOTAL - (STATE-SUPPORTED)	**9,093**	**4,617**	**51**

Table 14

Full-Time Tenured Instructional Faculty for 9/10, 11/12 Month or Other Contracts, 1989-90

Independent Institutions	Instructional Faculty	Tenured Faculty	Percentage Tenured
Averett College	49	26	53
Bluefield College	22	10	45
Bridgewater College	60	33	55
Christendom College	13	0	0
Commonwealth College - Hampton	20	0	0
Commonwealth College - Norfolk	8	0	0
Commonwealth College - VA Beach	18	0	0
Health Sciences, Roanoke Valley College	17	0	0
Eastern Mennonite College	53	8	15
Eastern Virginia Medical College*	0	0	0
Emory and Henry College	52	31	60
Ferrum College	85	50	59
Hampden-Sydney College	73	45	62
Hampton University	262	67	26
Hollins College	69	43	62
Institute of Textile Technology	22	0	0
Liberty University**	244	0	0
Lynchburg College	144	91	63
Mary Baldwin College	73	25	34
Marymount University	92	41	45
National Business College**	0	0	0
Notre Dame Pontifical Catechetical Institute	15	0	0
Presbyterian School of Christian Education	13	9	69
Protestant Episcopal Theological Seminary	16	13	81
Randolph-Macon College	74	44	59
Randolph-Macon Woman's College	71	42	59
Regent University	0	0	0
Roanoke College	82	52	63
Saint Paul's College	30	11	37
Shenandoah College	64	14	22
Southern Seminary College**	19	0	0
Sweet Briar College	70	51	73
Union Theological Seminary	22	15	68
University of Richmond	216	146	68
Virginia College*	0	0	0
Virginia Intermont College	36	13	36
Virginia Seminary and College*	0	0	0
Virginia Union University	73	21	29
Virginia Wesleyan College	51	25	49
Washington and Lee University	154	114	74
TOTAL - (INDEPENDENTS)	**2,382**	**1,040**	**44**

(Source): 1989-90 SCHEV SA Salaries of Full-Time Instructional Faculty.

*Institution's faculty are all part-time, teach preclinical/clinial med. or contribute services e.g. religious order or military personnel.

**Institution has not reported 1989-90 faculty data to SCHEV. 1988-89 figures were used as estimated totals.

The percentage of tenured faculty varies considerably among the independent institutions (Table 14). Among the institutions reporting, some had no tenured faculty while others were highly tenured.

Although the cost of faculty salaries has some relationship to the number of faculty holding tenure at an institution, the cost is more directly determined by the number of faculty at the upper ranks of professor and associate professor. Virginia's state-supported colleges and universities reflect the national situation, with faculty generally remaining employed at the same institutions for longer periods of time. As a result, the percentage of faculty at the upper-level ranks has increased.

In 1975-76, 17.7 percent of the faculty in the state-supported institutions held the rank of professor; in 1988-89, approximately 30 percent of the total faculty were at this rank (Table 15). The same pattern exists for the rank of associate professor. In 1975-76, 24.7 percent of the faculty were at this level, but by 1989-90 the percentage had risen to 32.7. Enactment of laws to allow Virginia's employees to retire at age 55 with 30 years of state service and to provide incentives for college faculty who choose early retirement may alter these percentages in future years.

Employment patterns in the independent institutions generally reflect the same trends as in the state-supported institutions, as will be noted in Table 16.

Making Progress on Faculty Salaries—In 1984-85, Virginia ranked 4th among the Southern states in the average salary paid full-time faculty at the state-supported institutions. The average salary for all faculty ranks in that year was $29,076. In each year of the 1984-86 biennium, the faculty salary increase at each public institution averaged 10 percent. As a result, by 1986-87, Virginia ranked first among

Table 15

Distribution of Faculty by Rank for 9/10, 11/12 Month or Other Contracts, 1989-90

State-Supported Institutions		Total Faculty	Professors	Percent Professors	Associate Professors	Percent Associate Professors	Assistant Professors	Percent Assistant Professors	Instructors	Percent Instructors	Lecturers	Percent Lecturers	Other Ranks	Percent Other Ranks
Doctorals	George Mason University	612	163	26.63	244	39.87	191	31.21	14	2.29	0	0.00	0	0.00
	Old Dominion University	595	165	27.73	207	34.79	135	22.69	61	10.25	21	3.53	6	1.01
	University of Virginia	968	414	42.77	279	28.82	218	22.52	23	2.38	34	3.51	0	0.00
	Virginia Commonwealth University	823	193	23.45	334	40.58	231	28.07	62	7.53	3	0.36	0	0.00
	Virginia Polytechnic Institute	1,515	547	36.11	545	35.97	342	22.57	81	5.35	0	0.00	0	0.00
	William and Mary	393	175	44.53	124	31.55	81	20.61	12	3.05	0	0.00	1	0.25
	TOTAL DOCTORALS	**4,906**	**1,657**	**33.77**	**1,733**	**35.32**	**1,198**	**24.42**	**253**	**5.16**	**58**	**1.18**	**7**	**0.14**
Comprehensives	Christopher Newport College	116	37	31.90	35	30.17	36	31.03	8	6.90	0	0.00	0	0.00
	Clinch Valley College	46	16	34.78	13	28.26	16	34.78	1	2.17	0	0.00	0	0.00
	James Madison University	477	158	33.12	144	30.19	132	27.67	43	9.01	0	0.00	0	0.00
	Longwood College	146	35	23.97	52	35.62	41	28.08	18	12.33	0	0.00	0	0.00
	Mary Washington College	159	58	36.48	43	27.04	44	27.67	3	1.89	11	6.92	0	0.00
	Norfolk State University	311	97	31.19	73	23.47	101	32.48	40	12.86	0	0.00	0	0.00
	Radford University	374	113	30.21	106	28.34	129	34.49	26	6.95	0	0.00	0	0.00
	Virginia Military Institute	95	48	50.53	23	24.21	19	20.00	3	3.16	2	2.11	0	0.00
	Virginia State University	176	50	28.41	41	23.30	64	36.36	19	10.80	0	0.00	2	1.14
	TOTAL - COMPREHENSIVES	**1,900**	**612**	**32.21**	**530**	**27.89**	**582**	**30.63**	**161**	**8.47**	**13**	**0.68**	**2**	**0.11**
	TOTAL 4-YEAR COLLEGES	**6,806**	**2,269**	**33.34**	**2,263**	**33.25**	**1,780**	**26.15**	**414**	**6.08**	**71**	**1.04**	**9**	**0.13**
Community Colleges	Blue Ridge	39	5	12.82	13	33.33	12	30.77	9	23.08	0	0.00	0	0.00
	Central Virginia	58	8	13.79	22	37.93	24	41.38	4	6.90	0	0.00	0	0.00
	Dabney S. Lancaster	29	2	6.90	10	34.48	11	37.93	6	20.69	0	0.00	0	0.00
	Danville	59	10	16.95	21	35.59	26	44.07	2	3.39	0	0.00	0	0.00
	Eastern Shore	17	1	5.88	3	17.65	5	29.41	8	47.06	0	0.00	0	0.00
	Germanna	35	4	11.43	10	28.57	12	34.29	9	25.71	0	0.00	0	0.00
	J. Sargeant Reynolds	122	32	26.23	45	36.89	37	30.33	8	6.56	0	0.00	0	0.00
	John Tyler	62	8	12.90	25	40.32	22	35.48	7	11.29	0	0.00	0	0.00
	Lord Fairfax	34	3	8.82	12	35.29	15	44.12	4	11.76	0	0.00	0	0.00
	Mountain Empire	59	5	8.47	17	28.81	20	33.90	12	20.34	0	0.00	5	8.47
	New River	61	11	18.03	11	18.03	21	34.43	17	27.87	0	0.00	1	1.64
	Northern Virginia	493	122	24.75	122	24.75	170	34.48	79	16.02	0	0.00	0	0.00
	Patrick Henry	34	2	5.88	10	29.41	13	38.24	7	20.59	0	0.00	2	5.88
	Paul D. Camp	27	3	11.11	9	33.33	11	40.74	4	14.81	0	0.00	0	0.00
	Piedmont Virginia	55	7	12.73	18	32.73	24	43.64	6	10.91	0	0.00	0	0.00
	Rappahannock	23	1	4.35	7	30.43	13	56.52	2	8.70	0	0.00	0	0.00
	Southside Virginia	47	2	4.26	13	27.66	20	42.55	9	19.15	0	0.00	3	6.38
	Southwest Virginia	75	8	10.67	16	21.33	28	37.33	22	29.33	0	0.00	1	1.33
	Thomas Nelson	101	21	20.79	29	28.71	42	41.58	9	8.91	0	0.00	0	0.00
	Tidewater	258	46	17.83	85	32.95	83	32.17	43	16.67	0	0.00	1	0.39
	Virginia Highlands	55	3	5.45	24	43.64	24	43.64	4	7.27	0	0.00	0	0.00
	Virginia Western	101	17	16.83	33	32.67	45	44.55	6	5.94	0	0.00	0	0.00
	Wytheville	46	9	19.57	14	30.43	17	36.96	6	13.04	0	0.00	0	0.00
	TOTAL - VCCS	**1,890**	**330**	**17.46**	**569**	**30.11**	**695**	**36.77**	**283**	**14.97**	**0**	**0.00**	**13**	**0.69**
	Richard Bland College	28	8	28.57	17	60.71	2	7.14	1	3.57	0	0.00	0	0.00
	TOTAL - 2-YEAR COLLEGES	**1,918**	**338**	**17.62**	**586**	**30.55**	**697**	**36.34**	**284**	**14.81**	**0**	**0.00**	**13**	**0.68**
	TOTAL - (STATE-SUPPORTED)	**8,724**	**2,607**	**29.88**	**2,849**	**32.66**	**2,477**	**28.39**	**698**	**8.00**	**71**	**0.81**	**22**	**0.25**

Table 16

Distribution of Faculty by Rank for 9/10, 11/12 Month or Other Contracts, 1989-90

Independent Institutions	Total Faculty	Professors	Percent Professors	Associate Professors	Percent Associate Professors	Assistant Professors	Percent Assistant Professors	Instructors	Percent Instructors	Lecturers	Percent Lecturers	Other Ranks	Percent Other Ranks
Averett College	46	12	26.09	18	39.13	12	26.09	4	8.70	0	0.00	0	0.00
Bluefield College	23	5	21.74	7	30.43	7	30.43	4	17.39	0	0.0	0	0.00
Bridgewater College	57	15	26.32	23	40.35	14	24.56	5	8.77	0	0.00	0	0.00
Christendom College	10	0	0.00	5	50.00	5	50.00	0	0.00	0	0.00	0	0.00
Health Sciences, Roanoke Valley College	21	3	14.29	8	38.10	7	33.33	3	14.29	0	0.00	0	0.00
Eastern Mennonite College	63	22	34.92	10	15.87	19	30.16	12	19.05	0	0.00	0	0.00
Eastern Virginia Medical College N/A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Emory and Henry College	54	17	31.48	13	24.07	20	37.04	4	7.41	0	0.00	0	0.00
Ferrum College	83	18	21.69	20	24.10	36	43.37	9	10.84	0	0.00	0	0.00
Hampden-Sydney College	78	27	34.62	19	24.36	20	25.64	0	0.00	12	15.38	0	0.00
Hampton University	266	37	13.91	60	22.56	122	45.86	38	14.29	9	3.38	0	0.00
Hollins College	69	23	33.33	26	37.68	16	23.19	4	5.80	0	0.00	0	0.00
Institute of Textile Technology	28	6	21.43	4	14.29	12	42.86	6	21.43	0	0.00	0	0.00
Liberty University	244	65	26.64	70	28.69	72	29.51	37	15.16	0	0.00	0	0.00
Lynchburg College	132	45	34.09	50	37.88	30	22.73	7	5.30	0	0.00	0	0.00
Mary Baldwin College	70	14	20.00	20	28.57	31	44.29	5	7.14	0	0.00	0	0.00
Marymount University	94	34	36.17	27	28.72	30	31.91	3	3.19	0	0.00	0	0.00
National Business College	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Notre Dame Pontifical Catechetical Institute N/A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Presbyterian School of Christian Education	12	6	50.00	4	33.33	0	0.00	2	16.67	0	0.00	0	0.00
Protestant Episcopal Theological Seminary	17	10	58.82	3	17.65	4	23.53	0	0.00	0	0.00	0	0.00
Randolph-Macon College	113	45	39.82	35	30.97	31	27.43	2	1.77	0	0.00	0	0.00
Randolph-Macon Woman's College	73	21	28.77	27	36.99	21	28.77	4	5.48	0	0.00	0	0.00
Regent University	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Roanoke College	81	22	27.16	31	38.27	27	33.33	1	1.23	0	0.00	0	0.00
Saint Paul's College	28	13	46.43	3	10.71	5	17.86	7	25.00	0	0.00	0	0.00
Shenandoah College	61	16	26.23	16	26.23	28	45.90	1	1.64	0	0.00	0	0.00
Southern Seminary College**	18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18	100.00
Sweet Briar College	66	29	43.94	18	27.27	17	25.76	2	3.03	0	0.00	0	0.00
Union Theological Seminary	18	12	66.67	3	16.67	2	11.11	1	5.56	0	0.00	0	0.00
University of Richmond	205	77	37.56	62	30.24	66	32.20	0	0.00	0	0.00	0	0.00
Virginia College N/A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Virginia Intermont College	35	2	5.71	30	85.71	1	2.86	2	5.71	0	0.00	0	0.00
Virginia Seminary and College N/A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Virginia Union University	65	12	18.46	14	21.54	28	43.08	9	13.85	2	3.08	0	0.00
Virginia Wesleyan College	55	21	38.18	11	20.00	13	23.64	10	18.18	0	0.00	0	0.00
Washington and Lee University	148	87	58.78	28	18.92	29	19.59	4	2.70	0	0.00	0	0.00
TOTAL - (INDEPENDENTS)	**2,333**	**716**	**30.69**	**665**	**28.50**	**725**	**31.08**	**186**	**7.97**	**23**	**0.99**	**18**	**0.77**

(Source): 1988-89 SCHEV SA Salaries of Full-Time Instructional Faculty
(N/A) represents institutions with non-applicable data.

all Southern states in the average salary for full-time faculty at all ranks (professor, associate professor, assistant professor, and instructor) combined. This salary growth, which has continued in 1988-90 and exceeds the national average, has helped Virginia considerably in attracting and retaining outstanding faculty from throughout the nation and even the world.

At the direction of the General Assembly, the Council of Higher Education has established a standard system for setting faculty salary averages that is based upon each Virginia college and university having a list of similar institutions to which its average salary is compared. The Council will continue to refine this system, which has received strong support within state government and from the institutions.

Summary

This chapter has presented a great deal of data about the Virginia system of higher education. Generally, the data support the Council of Higher Education's judgment that Virginia's system of higher education basically is sound and vigorous and that its excellence is increasing.

Clearly, much remains to be accomplished. Individually, several institutions are recognized nationally for their preeminence. Virginia must ensure that these institutions are able to build upon their past achievements to reach new levels of excellence. New programs implemented in the 1988-90 biennium, such as the Commonwealth Centers, will help to ensure that this happens. At the same time, the state must support the continued development of the other institutions so that Virginia has not only a "good" system but "one of the best in the nation." The issue papers which follow suggest a number of ways to sustain past accomplishments and to increase the progress toward this goal.

THE ISSUES

The overall condition of Virginia higher education is strong. The institutions generally have become more efficient and have found new ways to respond to demands placed upon them. While the number of high school graduates declined for several years, and following a slight rise will begin to decline again after 1990, college and university enrollments remain generally stable. Student characteristics are changing, however, and Virginia's population is growing more rapidly in some portions of the state than in others. As a result, some colleges and universities will continue to experience increasing enrollment, while others may have declines. But in the aggregate, Virginia's system of higher education is a growing and changing system in a growing and changing state. The issue papers which follow discuss some of the current interests and concerns in Virginia higher education, and offer a blueprint of the future.

Global Education

Virginia historically has been linked to nations of the world by commerce and culture. From colonial days its people have had a cosmopolitan world view, a sense that they are natural participants in affairs that extend far beyond the borders of the Commonwealth. This sense of global involvement will be magnified in the decades ahead as Virginia and the nation adjust to striking changes in the world's economic, cultural, and political order.

Global Education in Virginia

Many students today, in and outside of Virginia, are ill-informed about the customs, cultures, and politics of Virginia's potential trading partners throughout the world. They are not prepared to recognize or deal with conflicts of ideologies and value systems in international affairs. Quite often they lack skill in foreign languages.

While Virginia colleges and universities graduate significantly more foreign-language majors than the national average, a recent study shows that the number of graduates has decreased slightly in the last twelve years. While public colleges and universities awarded 279 undergraduate degrees in foreign languages in 1988, compared with 277 in 1976, during the same years, undergraduate degrees awarded in Virginia private colleges and universities fell from 139 to 105. Doctoral degrees in foreign languages—the source of college faculty in the future—fell from 12 in 1976 to seven in 1988.

Virginia is similar to the rest of the nation regarding doctoral degree foreign language requirements. Only 20 percent of the 142 public university doctoral programs have an absolute foreign language competency requirement, and another 10 percent have a conditional requirement based on dissertation topic selected.

There is, at present, little evidence that Virginia's colleges and universities significantly differ from others in the nation when it comes to overseas study. Of the 12 million American college students, only about 50,000 will study abroad this year. Nearly 90 percent of them will study in Western Europe, the one area of the world where we have a moderately strong tradition of study. Most of the 50,000 who do study overseas will be from a rather small segment of our society: white females from four-year institutions studying the humanities and social sciences. Other types of students or those studying different areas—mathematics, education, the sciences, engineering, business, and health—are far less likely to study abroad.

International students come to Virginia to study, but they are concentrated at several universities and are predominantly pursuing graduate degrees. For example, there are fewer than 15 foreign students at several public colleges with enrollments over 3,000. There are over 600 foreign students at George Mason University, over 500 at the University of Virginia, and nearly 1,400 at Virginia Tech. Nearly all of the international students are in graduate programs, and many are concentrated in engineering and the sciences. This uneven distribution of foreign students limits the learning opportunities of Virginia's students. Meeting, working, and studying with international students is an excellent way to learn more about another nation's culture, history, and language.

These are reasons for concern, but there are also more promising developments. Virginia's public

schools rank at or near the top of the states in the teaching of French, Spanish, Russian, German and Latin. From 1982 to 1988, enrollment in foreign language courses increased from 28 percent to 43 percent of secondary-school students. The Virginia Department of Education has sponsored summer language academies for the last three years and has set up a demonstration electronic classroom so language courses are beamed to schools with limited language programs. World history is a required course in Virginia's secondary schools, and many schools offer world geography. There is increasing interest in improving teacher preparation for world geography in secondary schools.

Colleges and universities are beginning to experience renewed interest in global education. The University of Virginia's Office of International Studies, for example, is working to make better use of the University's impressive resources of international foreign students, research scholars, visiting faculty, and library materials. It is trying to improve exchange programs and expose a greater number of students to other cultures.

Nearly half—33—of the colleges and universities in the Commonwealth have study-abroad programs. Sweet Briar College has been a pioneer in this area. It began its first international education program after World War Two by setting up the nation's first junior year in France. Randolph-Macon College's program is typical: students may study in England, France, Germany or Spain, spending either a semester or a year enrolled in a foreign college or university, often taking advanced language, history and literature courses. Christopher Newport College has Spanish-speaking education majors who do their student teaching in Latin America. James Madison University offers intensive, for-credit academic and cultural

semesters in Paris, Florence, Salamanca and London.

The growing interest in international studies is reflected in the fact that in the past biennium the Council encouraged or approved public institutions to begin five programs in this area. Eighteen institutions report already having such programs in place.

The Commission on the University of the 21st Century has suggested a fundamental change in the perspectives from which faculty and students approach the entire curriculum, especially at the undergraduate level. The crucial question to be asked is "to what extent does this curriculum help students to comprehend the variety of human cultures and the wide range of human experience that results from it?" There have already been some reponses to this challenge by Virginia institutions. Radford University has proposed a separate college of global studies. Mary Washington College has declared its intention to introduce a global perspective into all the college's programs, a development that is being considered on several other campuses.

In order to make such a fundamental change in the curriculum, faculty must be supported and encouraged in learning about other cultures. Old Dominion University and Tidewater Community College shared a Funds for Excellence grant in 1988-90 to introduce faculty to the languages and cultures of East Asia. This will lead to the revision of course curricula and faculty exchanges with foreign universities. The Wendy and Emery Reeves Center at The College of William and Mary brings faculty together to do research on international topics and recently sponsored a colloquium on international education in the 21st century. It drew over 100 scholars and administrators from 44 different colleges and universities in the Commonwealth, as well as from outside Virginia.

The Curriculum Challenge

So it is evident that some Virginia colleges and universities are actively responding to the challenge by assessing their curricula, reviewing their faculty strengths and interests, and revising their instructional programs. These changes will not only promote a broader perspective on the world; they should also sharpen the students' intellectual skills. For example, international comparisons encourage students to seek better ways of asking questions. Subject matter from other cultures provides additional data with which to develop, test, and modify theories. Employing cross-cultural models increases the accuracy of analysis and usefulness of research, providing a check on false generalizations and the ground for sound ones.

International comparisons also foster an appreciation for different ways of approaching the same problem. For example, engineers can learn about the various ways a particular design problem is viewed in different countries.

While understanding universal processes is often the goal of higher education, studying unique, idiosyncratic topics is also worthwhile. Areas of the world can be the subject of scholarly interest for their own sake, as are American history and Southern literature. Often the study of foreign areas or cultures provides the data for culture-specific theories. Before students can make cross-cultural comparisons, they must understand the individual cultures themselves.

The academic disciplines found within institutions of higher education traditionally have divided the world into small, artificial categories. Studying different cultures often has involved viewing the world through a particular set of disciplinary assumptions and orientations, which can distort or limit understanding. In order to understand another culture, the resources of a number of disciplines must be brought to bear. Merely to study its literature is not enough, just as one cannot understand contemporary trade practices by only knowing American export policies. By using the resources of a number of disciplines, students can better comprehend the variety of human cultures and the wide range of human experience.

Work and Trade

The graduates of Virginia's educational systems will work all over the United States and in many other nations. Some will work for multi-national corporations, while others will be involved in international commerce as practicing professionals in fields like law and engineering. All of them will be expected to discharge the responsibilities of citizenship, which will require that they comprehend issues that transcend the borders of states and nations.

Almost no issue today is exclusively domestic. Just as national security and economic policy are clearly no longer the business of individual nations, agriculture and environmental protection are also global in scope. How we handle crop surpluses or garbage from American cities has international implications when we attempt to sell our crops overseas or dump our garbage in the oceans. No longer can we view natural resources as something each nation harnesses. Instead, we must view the world as encapsulated, interdependent, and fragile. Nations that befoul the atmosphere and water are a threat to all.

In terms of communications and travel time, the world is growing smaller. Fiber-optic networks and satellite communications span the continents and respect borders no more than acid rain does. Banks speed billions of dollars from one continent to another, and there is a continuous world-wide flow of electronic information. Goods can move around the world in one day, and entire factories can be loaded into air transports for speedy delivery to even the most remote sections of the world.

The trading world is changing by such occurrences as the development of the common market in Western Europe, the removal of all trade barriers between America and Canada during the next 10 years, and, most dramatically, the changes in America's trade with countries on the Pacific Rim. Most of our huge trade deficit is with countries in this region, and they are producing most of the world's products.

The automobile industry is a good example of global interdependence. Not only do we rely on foreign oil to supply half of our energy needs, but many "American-made" cars have motors and other parts made in foreign countries. Similarly there are joint Japanese-American manufacturing plants producing "Japanese" cars in America, some for sale here and others for export. Individual products may contain parts manufactured in ten different countries, assembled in an eleventh, and sold in as diverse places as the United States, Saudi Arabia, and the Soviet Union. To understand only one country is to understand only a chapter of a very complex text.

Increasingly, global events affect Virginia's economy, which now has a huge stake in the world economy. Business at the port of Hampton Roads grew by 14% in 1988. Large and small foreign firms employ increasing numbers of Virginians. Canon, in Newport News, is one of the largest foreign firms in the Commonwealth, but many others have come to Virginia in the last few years. The most recent report by the Commonwealth's Department of Economic Development lists 346 businesses owned by companies in 22 countries. Nearly all of the ownership is European except for the Japanese, whose presence is growing very rapidly. The General Assembly recognized the importance of foreign trade by establishing the Virginia Department for World Trade, which works to bring foreign investment to Virginia and to promote the sale of Virginia's products overseas.

Recommendations

Virginians should be encouraged to study abroad in traditionally neglected parts of the world such as Africa, Latin America, and the Far East as well as in Europe. Not only do we need to change our geographic focus, we also need to alter the imbalance in the academic disciplines of students studying abroad, most of whom are in the humanities and social sciences. In today's world, engineering, business, and education are fields of special concern and interest. It is especially important that students from these disciplines be encouraged to study abroad.

Knowing that study abroad will never be possible for large numbers of Virginia's students, however, the Commonwealth should also encourage undergraduate foreign students to attend all Virginia colleges and universities. These students can be a part of an exchange program during the regular semesters or summer. In this way many more of Virginia's students than those who can study abroad will be able to form friendships with and gain an understanding of students from other countries.

Since a genuine working knowledge of its language is arguably one of the best ways to understand another culture, institutions should examine their current minimum competency language requirements to be sure that the standard actually ensures a functioning knowledge of the language. Alternatively, they might consider replacing their competency requirement with one that all students enroll in college language courses, so that those students who have begun to develop genuine fluency in high school go on to real mastery. Students who have had years of language study in high school should at least be encouraged to continue that study in college.

Virginia colleges and universities should assess their current curricular offerings in world history, literature, and geography to determine whether adequate emphasis is being given to Africa, Latin America, and the Far East. Nearly all aspects of the curriculum should reflect the global dimensions of the topic being studied.

A final recommendation is that colleges and universities work with foreign-owned businesses to develop international internships, language and cultural instruction, and cooperative research. These efforts to increase our global understanding should be made in cooperation with the new Virginia Department for World Trade. The Department promotes, coordinates and creates incentives for greater participation in the world economy. Given the economic realities that Virginians face, the pursuit of world trade and the desire for educational excellence are indivisible.

With support and guidance, Virginia's colleges and universities can help students better understand the world in order to meet the challenges of economic and technological change.

Planning for the Future: Goals for Virginia Higher Education, 1990-92

The United States prepares to enter the last decade of the 20th century with concern for its role in the community of nations. Throughout the world, political attitudes are changing, physical as well as social and ethnic boundaries are falling, major global powers are engaged in new forms of economic cooperation, and newly developed nations are competing aggressively for the world's markets. Within this country and abroad, the question that is repeatedly asked is "Can the United States compete successfully in the changing global environment?"

If the answer is to be "yes," we must find a way to improve the nation's schools. This need was highlighted this fall as the President of the United States and the nation's governors met in Charlottesville to plan a national education agenda to reform the nation's public schools.

We long have had a sense that our elementary and secondary schools are not adequately preparing our children to be successful and productive citizens. We have a good system of higher education, but we recognize its uneven quality and question whether it, too, is adequately preparing students to compete and work in the 21st Century.

As Virginians, we can take pride in the fact that there have been major improvements in the elementary-secondary system. But we obviously have a long way to go. In higher education, we understand that we have a very diverse system (institutions that range from open admission to highly selective) and that many institutions are recognized nationally as excellent. In recent years, a number of institutions have been identified as "public ivys" or "best buys" or in other ways singled out for their preeminence. But even here we know that we can do better.

To make certain that we know where to direct efforts to improve higher education into the next century, the Commission on the University of the 21st Century has developed a vision of the future of higher education in Virginia. The Commission's report was released in mid-November and is now being considered by the Governor and the General Assembly, as well as by the institutions, the Council of Higher Education, and the citizens of Virginia. The task for Virginia is not simply to have a good system of higher education but to have one that is in the very forefront of American higher education. As the 1987 *Virginia Plan* said, "Higher education should not and cannot march in place at a time like this. Virginia's colleges and universities are called to make important contributions to the quality of life and prosperity of this state and the nation. There is simply no substitute for a well educated citizenry, especially in periods of uncertainty." And as that document also noted, "there is no such thing as a free lunch or a free education. If Virginia wishes to remain a relatively low tax state and at the same time aspires to place its colleges and universities in the very forefront of American higher education, someone will have to pay for what it costs."

The question of who pays and who should pay for higher education in Virginia as well as throughout the nation continues to be a nagging and unresolved issue. It is an issue that is likely to overshadow future discussions about the system. So it is an issue that must be faced squarely and resolved if Virginia is to maintain its preeminent position in higher education into the 21st Century.

This discussion, however, should not detract us from recognizing that Virginia itself is a healthy and prosperous state and its system of higher education reflects the emphasis that has been placed upon it in recent years. Consider these examples of progress in higher education:

- Average faculty salaries have increased substantially (64 percent in the past six years alone), so that Virginia leads all other southern states in this important national indicator of a state's commitment to higher education.
- State financial aid funds appropriated to Virginia colleges and universities have increased from about $3.2 million in 1981-82 to over $19.4 million in 1989-90. As the federal government's efforts to provide student access have faltered, the state has moved to fill the need. Grants under the Tuition Assistance Program, which assists Virginians attending the state's independent institutions, have increased from $675 in 1981-82 to $1,500 per student in 1989-90.
- Seven Commonwealth Centers are fully operating. These centers were established at Virginia universities in 1988-89 to recognize and support scholarship that is judged by external reviewers to be among the top five of its kind in the nation.
- The teacher-education programs in Virginia colleges and universities have been entirely restructured to require more work in content areas instead of educational methods. By 1992, all new teachers who receive degrees in Virginia will hold degrees in a subject discipline.
- The Higher Education Equipment Trust Fund continues to have a great effect upon inventories of instructional and research equipment. Using this highly innovative funding technique, Virginia is meeting successfully one of the most serious problems in higher education.
- Virginia's special programs to emphasize institutional initiative and experimentation continue to attract national attention. Among these programs are Eminent Scholars, a state match of earnings on designated endowment to attract and retain distinguished faculty; the Outstanding Faculty Awards program, which honors those who teach and conduct research and scholarship in our institutions; and Funds for Excellence, a competitive grant program to support innovations in curricula.

Virginia can be proud of its system of higher education and its myriad of accomplishments, but numerous opportunities for improvement remain. How Virginia higher education responds to the opportunities will determine in large part how well the Commonwealth is prepared for the 21st Century and the influence that Virginians will have on the nation and the world.

With an understanding that Virginia higher education is a vital part of all that is happening within the state and recognizing that Virginia is in a position to participate in and, indeed, to help influence the changes that are taking place around the world, the Council of Higher Education now presents its list of goals for higher education for the next two-year period.

1. **Establish a funding balance that reflects the need to fund enrollment growth as well as quality improvements.**

Unlike many states, Virginia has had sustained higher education enrollment growth even during the years that the number of high school graduates declined. This has meant that funding has followed enrollments: additional students enrolling in an institution result in an increased appropriation to provide the new or augmented services required for the new students. Very often a large portion of the new money provided for higher education has been targeted toward enrollment growth. An institution that did not choose to grow—or could not, for whatever reason—often has had difficulty attracting new funds. While improvements continue to be made, little incentive has been provided for institutions to change—to try new and innovative ways of teaching, for instance—or to reform their curricula to meet the changing needs of Virginia's students.

Virginia needs a better balanced funding approach. Although economies of scale may result as new students are added, an institution must spend money for some new faculty, for some new support personnel and services, etc. But an institution that has a new idea or that attempts to improve the quality of its product also should be rewarded with funds to undertake the improvements in the educational interest of the state and the system of higher education.

To achieve the balance, Virginia should review and revise its funding formulas and also set aside an additional pool of funds to be distributed for initiatives to improve the quality of instruction or the delivery of services.

2. **Continue and expand funding for initiatives that address specific state priorities.**

This practice was introduced by Governor Gerald L. Baliles in the 1988-90 biennium. Specific issues were identified and funds provided to institutions whose proposals were imaginative and sensible. The establishment of Commonwealth Centers resulted from this special part of the higher education budget. In 1988-90, seven centers were established that are outstanding in the nation. These centers should receive priority for funding in 1990-92, and, if possible, three additional centers should be implemented. The three have been identified by experts outside of the state as being within the top five in the nation in their particular fields. They are in coastal physical oceanography (Old Dominion University), brain injury (Virginia Commonwealth University), and interdisciplinary and applied mathematics (Virginia Polytechnic Institute and State University).

Commonwealth Centers are the pinnacles of acknowledged excellence in Virginia research and scholarship. The one criterion that should continue to be applied to every potential Center is that it must be among the best activities in the nation in its discipline or disciplines.

Other initiatives that were funded through this special portion of the higher education budget include proposals to make the curricula global, provide or improve instruction through greater use of technology, and assess student learning.

Virginia's Higher Education Equipment Trust Fund continues to provide a systematic method for purchasing new equipment or for replacing old or obsolete equipment. The Trust Fund, which has made $85 million worth of equipment available to the state-supported institutions since its inception in 1986, is a model for the nation. To continue to meet the state-supported system's equipment needs in the 1990s, the Trust Fund must have a new appropriation of $12 million in 1990. These funds will permit the institutions to acquire about $33.5 million in equipment in 1990-92.

Another initiative that should continue in 1990-92 is the effort to keep Virginia's faculty salaries competitive nationally. With the strong support of the Governor and the General Assembly, the salary average has grown over 64 percent in the past six years alone to become the highest among the southeastern states and above the national average. A major faculty shortage will occur nationally in the later part of the next decade. Future increases should sustain Virginia's competitive edge in order to continue to attract and retain outstanding faculty from throughout the world.

3. **Increase state support for sponsored research at Virginia's research universities.**

In its 1985 and 1987 revisions to the *Virginia Plan*, the Council of Higher Education called for improving the national standing of the state's research universities. Currently, only three of these institutions—Virginia Polytechnic Institute and State University, the University of Virginia, and Virginia Commonwealth University—are among the top 100 research universities in the country.

In 1985 and again in 1987, the Council recommended the creation of an incentive program in which the state matched some portion of institutions' increases in sponsored research volume. That recommendation was not included in the budget, but the administration is permitting institutions to retain the sponsored research overhead on research volume that exceeds that in the base year. We need now to develop ways in which the state, the institutions, and the private sector can form partnerships to build additional research space.

4. **Accelerate efforts to keep the price of higher education as low as possible for Virginia students.**

The price that students and their families must pay for higher education is a product of various state and institutional policies (what the general fund appropriation will be, what fees will be charged generally to all students, which activities will be self-supporting, what packaging philosophy will be used in awarding financial aid funds, etc.). Marketplace factors also have an effect, particularly for items (such as the cost of fuel, telecommunications, and insurance) over which an institution has no control.

The Council generally has concluded that the price of Virginia higher education is not now too high but that it must be carefully watched to determine if there is a point when enrollments begin to be adversely affected. The continued growth in the Virginia system implies that the point has not been reached, perhaps in part because the state has continued to make increased financial aid available to the neediest students enrolled in Virginia's institutions.

To help hold down the tuition cost to Virginia's students, the Council supports the General Asemly's published revenue goal which suggests that out-of-state students should pay at least three times what in-state students pay. Most institutions already have implemented this goal—or exceeded it. In 1990-92, all Virginia institutions should ensure that the goal is fully implemented.

The Council also recommends that institutions review their cost centers and determine if all of the services provided are actually needed by students. Any that are superfluous should be dropped or students should be allowed to purchase them individually. If an institution determines that a service could be provided more easily or at less cost by contracting for it in the private sector, the institution should move as rapidly as possible to do so.

The state, too, has an obligation to ensure that its procurement, personnel, and operating guidelines and regulations do not unduly add to the cost of a necessary campus service. When an activity can be decentralized to the institutional level with a demonstrable reduction in cost, the state should do so. The current administration has made an admirable start in its decentralization of Virginia higher education, and we urge the new administration to continue this effort.

5. Develop a larger pool of graduate teaching and research assistants at the state-supported institutions and increase the financial assistance provided to them.

By all indications, Virginia will join most other states in experiencing faculty shortages, at least in certain disciplines, by the mid-1990s. Increasing numbers of faculty who were hired during the initial "baby-boom" era are reaching the normal retirement age. But Virginia's situation is more critical because of its projected enrollment increase.

Together, the two factors could create an exacerbated problem if Virginia does not identify ways to build the necessary faculty pool.

One possible solution to this problem is to increase significantly the number of graduate teaching and research assistants who will begin their graduate programs between 1990 and 1995. In order to attract additional numbers of highly qualified graduate students with the ability and desire to become college faculty, the state should increase the amount of financial assistance available to graduate students.

6. Intensify efforts to reform institutional curricula and to ensure that all Virginia students are exposed to a global perspective.

An accompanying issue paper discusses in detail the need for Virginia students to be prepared to deal effectively in the global community. Virginia's future economic development is closely linked with this effort. To be effective trading partners with the Pacific Rim nations, the European Economic Community, and the rest of the world, Virginia students must not only know the languages of their trading partners, but they must know something about the countries' culture and values as well.

7. Increase the number of black students and black faculty in Virgina higher education.

This goal is not simply an ancillary social objective of higher education. It is central to maintaining an intellectual environment in which a full spectrum of human experience is studied and brought to bear in scholarly inquiry. It is a curricular objective and it must be ranked among the primary objectives of Virginia higher education as it progresses toward its goal of standing among the best in the nation.

Virginia's statewide efforts to provide equal educational opportunity for black citizens should continue basically the approach they have taken since 1983. But there should be some important modifications in programs. What works should be pursued, what doesn't should be abandoned in favor of new activities. Since 1986, when long-standing agreements with the U.S. Office for Civil Rights expired, Virginia has continued and expanded its efforts to enroll additional black students and to hire more black faculty. Having fulfilled its commitments to OCR but remaining still short of meeting its objectives, Virginia should take the opportunity to re-design programs in a new attempt to find the mix of activities that ultimately will be successful in providing full educational opportunity for all of Virginia's students.

An Aging Faculty:
The Faculty Retirement Issue Confronts Higher Education

One of the crucial elements of the great success of Virginia's public system of higher education has been the ability of its colleges and universities to attract and retain the brightest and most scholarly faculty available. During the past few years the Commonwealth has contributed significant resources to the maintenance and improvement of higher education through the Equipment Trust Fund, the Eminent Scholars Program, new faculty positions, increased salaries for faculty (over 50 percent in the past six years) and funds for new and renovated buildings. The goal of this commitment is obviously to place Virginia's colleges and universities among the world's elite. But just as important, it is a declaration to faculty, both current and future, that they are the cornerstone of the higher education system.

This commitment to faculty excellence will be challenged by forces that are now beginning to take shape. They include increased competition from the private sector, a lack of growth in the number of doctoral degrees conferred, and the issue to be discussed in this paper: the aging of current faculty and prospects of replacing the faculty who will retire in the future.

The demographics of the full-time instructional faculty in many ways mirror those of the population as a whole. During the 1960's and early 1970's, large increases in student enrollments generated a tremendous need for additional faculty. Many young faculty were hired to meet this demand. This group—now much older—still comprises a significant portion of the faculty population. A faculty member who was

hired in 1969 at the age of 30 is now 50 years old and will most likely retire in the next 10 to 20 years.

The age distribution of the faculty at Virginia's public institutions of higher learning has changed dramatically over about 25 years. In 1966, 51.5 percent of the full-time instructional faculty were under the age of 40, compared to only 26.8 percent today. The average age during this same period has increased from 40 to 46. Partly due to a slowing of enrollment growth and a corresponding reduction in the need for new faculty, the rate of increase in the average age has increased during the decade of the 1980's. From 1966 to 1981 the average age of faculty at public institutions increased from 40 to 43 (an average annual increase of .20 years). But in the seven years from 1981 to 1988, the average age increased at an annual rate of .43 years to 46. This trend is evident in all types of institutions although slightly more pronounced in the doctoral institutions.

In order to analyze the faculty aging trend, the data must be considered by discipline, because there is a wide divergence of age distribution by discipline. In order to more accurately measure the number of faculty who will most likely retire in the next 15-20 years, it is best to compare the percentage of faculty age 50 and over. The disciplines with the highest percentage of faculty over the age of 50 are physical science (42.3 percent), engineering technologies (39.7 percent), education (39.3 percent), public affairs (39.2 percent), biological science (38.9 percent), foreign language (38.3 percent), and engineering (37.8 percent). Conversely, the disciplines of business (28.1 percent), psychology (28.1 percent), health (27.3 percent), and computer science (20.7 percent) have the lowest percentages of faculty over the age of 50. The average percent of faculty over the age of fifty in all disciplines is 34.1 percent.

In many ways the aging of the faculty is an indicator of positive occurrences in higher education. Although it is widely held that because faculties are becoming older, their effectiveness is therefore declining, Bowen and Schuster (*American Professors: A National Resource Imperiled*, 1986, p.40) conclude that distribution by age is probably not among the more important factors in distinguishing a great faculty from a mediocre one. Most of these faculty have been involved in higher education for many years, have found it to be a rewarding experience, and have been able to make significant contributions to the advancement of knowledge. It is natural to conclude that a faculty member who at age 55 is an active, vibrant, and valuable member of the faculty would be the same at 65 or beyond if he or she so desired. Probably the worst thing that can be said is that all of the faculty are at some point going to retire or otherwise leave higher education and have to be replaced.

Recent legislative actions may affect the age distribution and retirement patterns of faculty. In 1987 legislation was passed by the Virginia General Assembly (in response to amendments to the Age Discrimination in Employment Act of 1967) prohibiting mandatory retirement at any age (the previous age limit had been 70 years). Since then there has been much debate concerning the effect this change may have on the retirement patterns of faculty and the resulting effect on the recruitment of younger faculty. Even though it may be years before the full ramifications of this change are apparent, the available data suggests that it will not be significant system-wide. Historically, 94 percent of the retiring faculty have retired at age 69 or younger, many in their late fifties and early sixties. In the only year since the law was changed, the pattern remained stable. In fact, in the last 22 years the percentage of faculty over the age of 65 has remained constant. A recent survey conducted by the Teachers Insurance and Annuity Association and the College Retirement Equities Fund (TIAA/CREF) concluded that "contrary to predictions by some higher-education officials that the uncapping could encourage many professors to stay on indefinitely, thus locking younger scholars in lower-level positions or out of the profession altogether, the survey found that most respondents did not plan to change their retirement plans because of the legislation" (*Chronicle of Higher Education*, Feb. 15, 1989, p.A13).

The removal of a mandatory retirement age might affect small departments that have only a few faculty. For this reason legislation also was passed in Virginia permitting institutions to develop early retirement incentive plans so they would be better able to manage their faculty resources. Although only a few plans have been developed, they may take on increased emphasis in the future.

Prior to these legislative changes, academic administrators could always count on the fact that all faculty would retire at age 70. Since the changes, there have been some faculty who have decided to remain employed past their 70th birthday. Although this number is not statistically significant, it is a cause for concern. Until a pattern develops, the uncertainty it has created will continue to be a source of concern.

It is clear that the number of faculty reaching age 70 will increase. Without measuring other factors that affect faculty turnover, the number of faculty retiring in Virginia is projected to increase at a rate of 6 percent a year over the next 20 years. At that rate one-half of the current faculty will have to be replaced by about the year 2005. Attention must be focused on the prospects for replacing these retiring faculty with new faculty who meet the high standards for quality that Virginia has come to expect. The effect of increased retirements on faculty recruitment will be magnified by the enrollment growth that is projected to occur during the same period. The demographic trends that influence projections of student enrollment are important factors to be considered. When the number of births began to decline at the end of the baby boom in the early 1960's, there loomed a corresponding drop in the number of high school graduates in the early 1980's. Most planners predicted a reduction in enrollments in the 1980's, but enrollments remained steady and in Virginia actually increased by about one percent per year. Other factors—such as an increase in the rate of high school graduates who attend college, a reduction in the high school drop-out rate, and reduced higher education attrition—worked to offset the reduction in high school graduates.

We are entering a period in which enrollments will be shaped by what demographers refer to as the “baby boom echo.” The number of births in Virginia began to show a marked increase in 1978 as the baby boom generation began having children. This rate of growth is projected to produce an increase in the number of high school graduates that will last well into the next century. The number of public high school graduates in Virginia is projected to increase by 28 percent by the year 2003 over the amount in 1987. This rate of growth places Virginia seventh in the nation in rate of projected growth. In fact, half of the states are projecting enrollment declines over the next two decades.

The demand for higher education in Virginia probably will increase at a time when faculty attrition also will increase. The need for highly qualified new faculty will be comparable to the period of the 1960's and 1970's. The replacement pool will come from basically three groups: persons completing their graduate and doctoral degrees and entering the faculty for the first time; persons who have the credentials to teach but who are either unemployed, underemployed, or who are working for business or government and have a desire to enter the faculty; or current faculty who move from a discipline declining in enrollment to a discipline that needs more faculty.

The number of doctoral degrees conferred in the United States has remained relatively stable over the last 10 years. The immediate effect of this stagnant pattern was mitigated by the slow growth in faculty openings. In fact, the number of persons earning Ph.D. degrees who have taken jobs in the non-education sector has steadily increased. With the increased need for faculty looming, the competition for doctoral program graduates will increase unless the number of degrees conferred keeps pace with demand. Rapid changes in the granting of doctoral degrees are difficult to effect because it takes on average 6.9 years to earn a doctoral degree.

Other trends in doctoral degrees conferred are notable in the effect they may have on faculty recruitment. Fortunately, the number of women receiving doctoral degrees has increased significantly; however, minority groups have not been as successful. The number of black males receiving doctoral degrees has actually declined in the last ten years. This is of major concern to schools that are looking to increase minority representation in the faculty. The number and percentage of foreign students has increased, which is significant because some of these students will return to their native lands upon graduation.

The variance of doctoral degrees conferred among disciplines is important to academic administrators when planning for their future needs. The social sciences, letters, and foreign languages have seen large reductions in doctoral degrees conferred. These disciplines have not grown in enrollment but are expected to experience some resurgence in the future. The reduction in foreign languages is particularly disturbing, given the increased need for multilingual faculty and students in today's shrinking world. Computer science, public affairs, agriculture, and engineering have seen substantial growth in doctoral degrees conferred due to the emerging career opportunities in these fields. Physical science, business, biological science and education have seen little change.

It is very difficult to predict the future supply of doctorates, but there are actions that can be taken to help ensure that faculty needs will be met. Financial aid in the form of fellowships, stipends and loans can be used to entice students to enter fields that are in need of faculty. Universities need to review doctoral degree programs to reduce, where possible, the amount of time it takes to acquire a doctoral degree. Colleges and universities have important roles in the induction of people into the academic profession. Programs should be developed or enhanced to educate students to the rewards of a career in academia.

Colleges and universities must be prepared to explore less traditional ways of attracting faculty. During the tight faculty labor market of recent years, many persons who wanted to enter academia were forced to take other jobs. These people, with some retraining, could be a valuable asset. There does exist a permeability between academia and non-academic professionals. Toombs (*Faculty Career Change: A Pilot Study of Individual Decisions*, 1979, p.10) found in a survey sample that 59 percent of academic persons had non-academic experience during their careers, and about 20 percent of non-academic persons had academic experience. The possibility also exists for existing faculty in disciplines with low demand to move to related disciplines where faculty are needed.

Another concept that deserves serious consideration is a junior faculty hiring program. In departments where there is a high percentage of older faculty, outstanding junior faculty would be hired before the vacancies occur. Older faculty would act as mentors for the new faculty, using their vast experience to provide nurturing and support. This type of program would provide greater continuity and less uncertainty to the process of replacing retiring faculty.

The development of new technologies for educating students and the importance of their assimilation into the accepted pedagogic methods cannot be overlooked. Already the use of televised instruction has had an impact on higher education in Virginia. Courses are being made available by satellite to students that probably would not otherwise have access to them. New technologies must be integrated into planning for faculty resource requirements.

The projected demand for faculty into the next century is a tremendous opportunity to increase minority participation in higher education at the faculty level. In order to capitalize on this situation, colleges and universities must begin now to target young minority students who show promise as undergraduates for intensive counseling by mentors. They must also ensure that their recruitment efforts emphasize the desire to recruit minority faculty. These efforts must be undertaken now, as many of the young people who could fill the projected vacancies are undergraduates today.

Higher education must remain competitive with other industries regarding incentives for faculty to meet the recruiting needs of the future. Virginia must also remain competitive with other states and private schools in order to attract quality faculty. Salaries and benefits must keep pace, needs for equipment and new technology must be met, classroom and office space must be adequate and well maintained to provide faculty with a positive work and teaching environment. The great accomplishments in Virginia higher education over the past decade must not be lost.

Many of the uncertainties being faced by Virginia regarding this issue are being encountered by other states as well. Virginia must stand ready to work with other states and the federal government on problems that are national in scope. Virginia's schools recruit nationwide for the best faculty and what other states are doing affects Virginia.

In the future it will be important for each institution and the State Council of Higher Education to monitor closely the trends in faculty retirement and recruitment, student enrollments, and doctoral degrees conferred in order to plan for future needs and react to change. Effective management of Virginia's faculty resources will be the key that unlocks the door to future opportunity.

Student Assessment in Virginia: An Update

The *Virginia Plan* has always featured the mission statements of the institutions, statements that describe each institution's mission of the particular role it plays within the system of higher education in the Commonwealth. This year, the statements of the public institutions are supplemented by a new feature, summary results of their assessment of undergraduate student outcomes. This addition represents an important new direction for the Plan. Now, juxtaposed to each college's or university's statement about what it thinks it does is evidence about what it actually accomplishes in the undergraduate education component of its mission. The assessment summaries indicate that the institutions are paying close attention to the relationship of their intentions and results, and where the two differ, they are taking steps to bring them together.

In July, each public institution submitted to the Council a report about the process and results of the assessment program begun two or more years previously. The programs were supposed to have a number of components: assessment of student achievement in general education and in the major; surveys of alumni about their opinions on their education; and evaluations of students for possible placement into remedial courses and to determine their subsequent success in college courses. In addition, the four-year institutions were asked to report to community colleges regarding the success of the latter's graduates who have transferred there.

Three consultants from outside the state, known

nationally for their work in assessment and long-time observers of Virginia's approach, joined with Council and Virginia Community College System staffs to read and comment on the reports. Overall, the reviewers were impressed by the scope and variety of assessment efforts in Virginia and judged that institutionally based assessment is working, and working well, in the Commonwealth. There is, of course, a range in the maturity of the programs. James Madison University, which began its model program in 1986 and submitted what one outside reviewer called "the best assessment report I have ever read, from any institution, in any state," produced results valid and reliable enough to be used for curricular modification in 25 departments, whereas some other institutions are just beginning to collect data that have neither been thoroughly analyzed nor used. But there is an almost universal institutional commitment to the process.

Some areas have turned out to be harder to assess than others, in Virginia as in the rest of the nation. General education is perhaps the most difficult. A number of institutions have used standardized tests to gain a sense of how well their students perform compared to others in the nation. This has proved useful, particularly for colleges that are revising their general-education programs. However, the results of such tests are hard to use for reform of specific elements of the curriculum, since it is very difficult to know what part of the curriculum needs to be strengthened if students do not do well, for example, on measures of critical thinking.

A number of institutions have developed their own instruments for assessing general-education outcomes. The one that has received the most national attention is at William and Mary, where faculty evaluate portfolios of students' work collected over a series of courses in light of general-education goals to which the faculty has agreed. However, this approach, while very promising, addresses only a few of those goals, primarily writing skills. The College is devising other means to assess the mastery of particular bodies of material and the development of values. Almost certainly other institutions will have to devise multiple measures to assess general-education and departmental curricula.

For all its difficulties, general-education assessment has been a positive influence on those campuses that have begun to answer its challenge. On most campuses it has led to a new definition of the objectives of general education, objectives that are formulated less in terms of what kinds of courses students should take and more in terms of what they should know and be able to do. The colleges in the VCCS have initiated a system-wide discussion of their goals that should lead to better articulation of their curricula with those of the four-year institutions. Sometimes assessment results from earlier programs have already helped reshape the curriculum: at George Mason, for instance, putting students into a cluster of courses, which had worked well in some pilot general-education programs, became a feature of a proposed new program.

On most campuses assessment in the majors has been a less daunting challenge. The goals of such programs have proven, in many cases, to be easier to agree on, and in some cases simple clarification has led to curricular change even before student achievement has been evaluated. Departmental faculty have discovered that they can use some student work produced for purposes of individual student evaluation to determine how well students in the aggregate are mastering the essentials of their discipline what the faculty think they ought. In these instances assessment is fitting naturally into the normal academic processes rather than proving to be a disruptive additional activity.

If the proof of a pudding is in the eating, the proof of a college's success is finally in the satisfaction its alumni feel in the education with which it has provided them. Many institutions have long had some form of alumni survey in place, but most did not actually ask alumni about their academic experience at the college. Many colleges have revised their alumni surveys to do that. The large majority of alumni of Virginia's colleges and universities who responded to these surveys expressed overall satisfaction with their education. In some cases, their identification of weaknesses in their general education or major, particularly when reinforced by similar observations on senior or employer surveys, has resulted in clear and forceful action. For instance, most colleges have found dissatisfaction among students and alumni alike with academic advising and with training in the use of computers; this has led in some cases to faculty development efforts in these areas. It is also clear that, in the future, results that identify wide-spread problems will help the Council establish priorities for programs like the Funds for Excellence.

Virtually all community colleges and several of the four-year institutions had in place procedures for identifying students without the skills requisite for college-level work and hence in need of developmental education. Before assessment mandate, however, few evaluated the success of remediation, either by recording the number of students with the requisite skills at the end of the course or through tracking the students' subsequent academic performance. Colleges that have initiated such programs have been able to identify successful programs, like that at

Longwoood College, as well as unsuccessful ones. At one college the discovery that remediated students were not succeeding led to the hiring of a developmental education specialist and a revision of the college's admissions policies.

As part of the effort to help the underprepared student, some colleges went beyond the letter of the assessment guidelines and tried to determine what were the indications—both in terms of academic scores and of personality profiles—that a student was at risk of failure or dropping out. At several institutions—Virginia Military Institute, James Madison University, Radford University, and Clinch Valley College—this information will be given to advisors so that they can pay careful attention to the special needs of these students. This is just one way that institutions have gone beyond the original scope of the assessment program to examine the effects of the undergraduate experience, both in and outside of the classroom, on the whole student and to use the results of assessment to help individual students.

Community colleges have begun to track the success of their graduates by looking at how well they perform at four-year institutions. Over seventy reporting agreements are in place through which they are beginning to collect information. It may take several years before the numbers of students transferring to any single institution are large enough to provide a reliable data base. Senior institutions will probably also need to provide comparative information for students who began there as freshmen if the community colleges are to understand the significance of grade information.

In some cases the community colleges have been unable to use the information provided for an examination of curricula: some four-year institutions, in an effort to protect students' privacy, are unwilling to provide student-identifiable information, but unless the community colleges can determine what courses of study students took at their college, they cannot know which produce successful and which unsuccessful students. Virginia Tech has dealt with this problem by doing some analysis for the community colleges from which it receives significant numbers of students; it does the same for its major feeder high schools.

The sharing of information among four-and two-year institutions points to a side effect of assessment: communication. Faculty within departments and colleges are discussing the central question too often neglected in the press of daily business: what are we really trying to accomplish, and how do we know whether or not we have? Some also, in attending one of the many assessment conferences and workshops in the state in order to figure out how to do assessment in their disciplines, are talking with colleagues at other Virginia institutions for the first time. An informal group of assessment coordinators has formed, and the community colleges and institutions within regions are working together to address issues of common concern.

In order for assessment to work for the improvement of teaching and learning at an institution, it is necessary to have the commitment of all sectors of the academic community: the administration, from the president to department chairs; the students; the faculty; and student support staff. At institutions like James Madison, William and Mary, Virginia Military Institute, Radford, and Old Dominion, institution-wide commitment has meant that solid assessment processes lead to results which lead to action: curricular reform, faculty development, the allocation of resources where they are most effective within the institution, and so on. Those results can also undergird institutional planning and lend credibility to requests for incentive funding from the state.

Assessment, to be effective, needs to be an integral part of the institution's life and culture and connect to existing evaluation, planning, curricular, and student-support activities. Some institutions, for instance Christopher Newport College or George Mason, have incorporated assessments into previously existing program-review procedures, and others, like Virginia Tech and James Madison, have made it part of a very broadly conceived examination of institutional effectiveness and planning. Assessment staff can help the institution evaluate projects that fall outside of the scope of the assessment mandate. Some institutions—Radford, Longwood, and Tech—have developed, for assessment purposes, a student data base that will be useful for student advising.

In short, Virginia has reason to be pleased with the initial results of its assessment program. The National Association of State Universities and Land Grant Colleges recently singled out the Commonwealth for praise for permitting "colleges and universities to develop institutional programs and define indicators of quality appropriate to their missions and goals and consistent with state-wide objectives and standards." It seems possible to do that and, at the same time, to provide the public with reasonable assurances that quality is being carefully monitored and ensured. Despite the effort and resources that such an individualized program takes, despite the slowness with which it is bound to evolve, and despite the fact that the very diversity of assessment programs makes their results impossible to compare, the Commonwealth's approach to assessment is the kind that is most likely to improve teaching and learning at Virginia's public colleges and universities.

INSTITUTIONAL NARRATIVES

STATE-SUPPORTED INSTITUTIONS

The narratives of the state-supported institutions are an essential component of the *Virginia Plan for Higher Education* because they provide a historic perspective on each institution as well as an indication of the institution's aspirations. Each narrative, which was prepared by the respective institution specifically for the *Virginia Plan*, presents a clear indication of the institution today and what it hopes to be in the future.

The narratives follow a similiar format to ensure uniformity in content and the inclusion of comparable information. Each narrative describes the history and development of the institution from its establishment to the present, provides a statement on the purpose of the institution, and indicates the extent of the institution's instruction, research and public service activities. The narrative also discusses the institution's future plans and presents a summary of the results of its student assessment activities. In addition, a statistical profile of the particular institution is included with each narrative.

Christopher Newport College

In 1960, the General Assembly of Virginia established Christopher Newport College as a non-residential branch college of the College of William and Mary and located it in Newport News. Subsequently, the Board of Visitors of the College of William and Mary authorized the branch institution to offer a lower-level undergraduate liberal arts curriculum leading to the Associate of Arts degree. From 1961 to 1969, the College matured as a two-year institution, and in 1969 the Board received approval from the General Assembly to broaden the role of the College by adding upper-level curricula leading to the Bachelor of Arts and Bachelor of Science degrees. Between 1969 and 1976, the College initiated several specialized baccalaureate programs leading to Bachelor of Science in Business Administration, Bachelor of Science in Information Science, and Bachelor of Science in Governmental Administration degrees.

In its 1976 session, the General Assembly established Christopher Newport College as a four-year baccalaureate institution, independent of the College of William and Mary. The operation of the College was transferred to the 14-member Board of Visitors of Christopher Newport College on July 1, 1977. The College has since implemented programs of study leading to three additional degrees: Bachelor of Science in Accounting, Bachelor of Science in Nursing, and Bachelor of Music.

In September 1961, the College enrolled an initial student body of 171 at its original location, the John

W. Daniel School, a former public school building in downtown Newport News. In 1963, the city purchased and deeded to the Commonwealth the 75-acre tract which is now the campus of Christopher Newport College. Over the years the on- and off-campus student body of the College has grown to more than 4,600. Ten modern buildings with more than 320,000 square feet of floor space have been erected on its new campus. A total annual operating budget of approximately $17,400,000 supports its overall operation.

The College draws many of its students from the Virginia Peninsula and the surrounding counties beyond the York and James rivers. Increasing numbers of students from Norfolk, Virginia Beach, and Chesapeake have augmented this majority. The student body has been, and is, a blend of full-time and part-time students, degree-seeking and unclassified students, and permanent as well as transient residents of Tidewater. While elements of the blend have remained constant, the relative proportions have changed annually.

The Fall 1988 student profile illustrates the current mix: 91 percent state residents, 10 percent out-of-state; 84 percent white, 16 percent non-white; 60 percent female, 40 percent male; 37 percent age 21 or less, 45 percent age 22-34, 18 percent age 35 or more; 79 percent transfers from other institutions; and 70 percent degree-seeking, 30 percent unclassified. One of the most remarkable features of the student body is the cosmopolitan flavor derived from its large number of transfer students. In the Fall 1988 semester, for example, they numbered 3,670 and represented 792 accredited colleges and universities—including at least one college or university in each of the 50 states and the District of Columbia.

As of Fall 1989, 140 persons held faculty positions in the 18 academic departments of the College. They held 358 earned degrees, 88 of which were earned doctorates at colleges and universities in 40 of the 50 states, the District of Columbia and eleven foreign countries. Prominent and highly respected members of the Commonwealth's industrial, commercial, professional, scientific, and artistic communities form the College's adjunct faculty. The faculty is organized into three schools—Letters and Natural Science, Social Science and Professional Studies, and Business and Economics.

Purpose of the Institution

Christopher Newport College is a comprehensive, coeducational, urban institution of higher education. Within the context of liberal learning, the College is committed to meeting the needs of its constituencies through excellence in instruction and through public service and research.

The broad purpose of the College is to be an informed transmitter and disciplined interpreter of the past and an intelligent developer of the present and future so that its students may move toward freedom in thought and action. To these ends, the College has organized baccalaureate programs to affirm the methods, values, and insights of the traditional liberal arts disciplines, and the importance and promise of the rapidly evolving areas of high-technology, human service and professional studies. The patterns of enrollment and graduation illustrate the interactive nature of the elements of this plan. Fall 1988, enrollment was distributed among the three Schools as follows:

Letters and Natural Sciences	42 percent
Social Science and Professional Studies	35 percent
Business and Economics	23 percent

Graduations in 1988-89 produced these results:

Letters and Natural Sciences	16 percent
Social Sciences and Professional Studies	36 percent
Business and Economics	48 percent

The College believes that it has a responsibility to offer academic programs and educational services appropriate to a mobile, urban, technological, commercial, and increasingly sophisticated society, and to make the Greater Hampton Roads the special focus for these activities. This is reflected in the College's range of degree programs; in its cooperative agreements with area colleges and universities; in its student transfer arrangements with the Virginia Community College System; in its policies governing admission, transfer, and graduation; and in its counseling programs and continuing education activities.

The College also recognizes its obligation to extend its resources throughout the service area by offering coursework and other services at suitable off-campus locations; and it is committed to the development of courses and services which turn the best resources of the Peninsula—its museums, research centers, and people—into educational advantages for the Commonwealth.

Recent additions to the College include the Falk Art Gallery and studios, to be used for exhibits and guest lectures, and the Japanese Tea House, an authentic reproduction which will further enrich the College and community both educationally and culturally.

The Role of Instruction, Research and Public Service Within the Institution

The first priority of Christopher Newport College is instruction, but research and public service are significant ingredients of its comprehensive academic enterprise. The College provides classes throughout the year: day and evening, weekday and weekend, on-campus and off, credit and non-credit. Public service activities include a monthly business and economic newsletter; a speaker's bureau; several community concert series and theater productions; community development programs; consulting services; and adult education, recreation, and leisure programs designed by the Office of Continuing Studies. The newest addition to the last of these is the Elder Learning Society, a rapidly growing program for persons of retirement age to find opportunities for continued learning and intellectual challenge. In addition, the College has developed cooperative programs with Mexico, including programs for the comparative study of health care systems in Cuernavaca and for student teaching assignments in Guadalajara. Locally, the College has offered on-site Japanese language and culture courses in area elementary schools.

The College's research activities have resulted in the establishment of cooperative relationships with the National Aeronautics and Space Administration, the Continuous Electron Beam Accelerator Facility, the Mariners' Museum, and various social and business agencies in the community. The annual dollar value of research conducted in conjunction with the College regularly exceeds $150,000.

The Institution's Future Directions

Christopher Newport College is committed to continue its evolution as an institution for both traditional and nontraditional students, as a lifelong learning center for the citizens of its expanding service area, and as a focal point of both pure and applied research activity. The College believes that educational growth at both undergraduate and advanced levels of study will occur as the Greater Hampton Roads emerges as one of the Commonwealth's economic development centers. The College intends to pursue its commitment to serving the educational needs of the Virginia Peninsula through the development of appropriate new academic programs. By the turn of the century, the College expects the student body to exceed 7,500 students.

Christopher Newport College will begin construction of a new 2.8 million library addition in 1990 and anticipates that the coming decade also will require an expanded physical education and convocation center, a performing arts center, appropriate residential facilities, and the modification of existing structures to accommodate expanding and changing functions.

Student Assessment

Christopher Newport College has implemented its student assessment program during 1988-89. Some of the major achievements of the assessment program are the following:

(1) implementation of multiple strategies of general education assessment in preparation for a thorough review of the general education requirements by the CNC Faculty Senate during 1989-90;

(2) analysis of student writing portfolios, along with other data, to provide a complete overview of the CNC writing program over an academic year;

(3) completion of the first cycle of major program assessments with the reports of Philosophy and of Political Science and Governmental Administration;

(4) analysis of alumni follow-up data from two surveys sent to over 1,200 alumni 1, 5, 10 and 15 years after graduation;

(5) analysis of data tracking the academic success of students taking remediation prior to entry into college-level courses; and

(6) analysis of surveys of student attitudes and opinions for 1986-88, including both current students and graduating seniors.

General Education

General education goals statements were matched with different assessment strategies in a multiple-method approach. The methods used on which data are reported included an ACT-COMP pilot test with a sample of graduating seniors, writing program assessment data for students enrolled in college-level courses, the Graduate Survey of Educational Gains, archival data from the institution's Instruction Evaluation Survey database, and critical thinking assessments.

The assessments yielded evidence that CNC students who have taken all or most of their college coursework will, on the average, have achieved relatively strong levels and significant gains in such highly transferable academic skills as reading and interpreting critically in standard English, writing clearly and effectively, analyzing and interpreting information using sound principles of logic, developing effective problem solving and reasoning capability, and developing long-term habits of independent learning and thinking. Many of these conclusions are supported by both self-report estimates and actual skill-related performance.

Modest gains are reported by students in more content-specific skills such as applying social science concepts, understanding literature, understanding the arts, and understanding Western civilization in historical perspective. Survey respondents who demonstrably took relevant coursework at CNC, such as majors in closely related programs, rated their gains more highly in these respects.

One area of concern relates to the goal of "expanding the range of cultural experiences," a strong priority at CNC with the recent addition to the curriculum of "global review" courses and the initiation of new programs in international studies. Another area of concern, although not formally included in current general-education requirements, is that of computer literacy. A careful review will be made of these and other relevant data as part of CNC's Faculty Senate review of general-education requirements during 1989-90. In addition, a long-term observation of trends will be undertaken to ascertain whether recent curricular and other changes in the CNC environment will result in more positive assessment results for these areas.

Major Programs Assessment

Central to the approved plan for assessing major programs is the integration of student outcomes data into the already existing five-year cycle of program reviews. During 1988-89, the programs in Philosophy and in Political Science and Governmental Administration became the first to undergo review under the new program-review guidelines which included their student assessment plans, approved by the Program Review Committee in 1987-88.

Philosophy

The philosophy program has documented above-satisfactory performance of senior majors on their research projects in the required senior seminar. This project and its assessment by an outside evaluator was intended to demonstrate achievement in relation to the overall goal of "becoming a critical thinker," which was divided into 13 components.

Philosophy majors consistently rate their courses in philosophy as being a valuable part of their education. Recent graduates in philosophy also tend to report a high degree of satisfaction with their educational experience at CNC. Graduates five, ten and 15 years out give many positive ratings of their educational gains at CNC. In general, they rated most highly the dimensions of transferable academic skills, such as those related to critical thinking, which are so central to the philosophy program at CNC.

Political Science and Governmental Administration

The program in Political Science and Governmental Administration documented from the perspective of an external consultant that specific course objectives in the courses required for a major are being met satisfactorily. Broader-based assessment strategies were recommended to assess development of analytical skills, which are being emphasized increasingly in the department's general instructional approach. Senior research projects demonstrated satisfactory mastery of particular research approaches in the judgment of the consultant.

Seventy percent of graduates of the program one year after graduation are engaged in employment which they judge related to their coursework. Graduates of the 1988 class also rate their educational experience at CNC significantly more positively than their classmates in other major programs, while rating the value of their major at a level equal to graduates in other programs. Political Science majors rate their courses taken for their major as highly as other students do theirs. Senior exit surveys also show a high degree of satisfaction with the political science program and with the practicum experience in particular.

As a consequence of the department's self-study, it will implement significant curricular reforms in 1989-90 including, among others, adding an interdisciplinary minor in Latin American Studies and a specialty in Legal Studies within the B.S. in Governmental Administration degree. The department also will follow up its activities during 1989-90 by preparing a supplementary report on assessment outcomes for its dean.

National Comparison

On the ACT Student Opinion Survey, given to a representative cross-section of students at Christopher Newport College and to graduating seniors, CNC students rated their majors (both course content and instruction) at a level which was as high or higher than the ACT normative sample (approximately 4.0 on a 5-point scale).

Alumni Follow-Up

The graduate follow-up survey revealed that over 97 percent of graduates are employed approximately one year after graduation. Employment status did not differ substantially by schools within the college. Over 60 percent of all graduates had enrolled or were planning to enroll in graduate school. A significantly greater proportion of these were from the School of Business and Economics than the other two schools. Overall, approximately 98 percent reported being either "satisfied" or "very satisfied" with their experience at CNC.

The Graduate Survey of Educational Gains, surveying over 300 graduates five, ten and 15 years out, revealed high estimates of gains in the areas of acquiring career-related knowledge and skills, acquiring adequate background for further education, understanding the self, and learning to understand and work well with people.

Remediation

Assessment for college skills begins upon entry when students must meet general requirements to be admitted as classified; in particular a minimum SAT score of 800 (400 each in Verbal and Math) is mandatory for admission to college-level English or math courses. In addition, English proficiency must be demonstrated on mandatory writing placement (essay) and reading placement tests. Math proficiency in the Placement Test Program of the Mathematics Association of America is recommended for entry into college-level math courses.

Students who do not meet these criteria are placed into English 020 or Math 030. Between 60 and 70 percent of the enrollments in these courses are freshmen who have been so placed, the balance being made up of repeaters, transfer students and others. Enrollment in degree-credit courses is dependent upon meeting the catalogue prerequisites; in the case of English, the further restriction is that students must have either passed the writing placement test or English 020 to be admitted to courses taught at or above the 100-level.

Success in remediation has been assessed through tracking the performance of enrollees in English 020 and Math 030 in subsequent coursework. In addition, the Department of English uses a portfolio system to assess accomplishments of students in precollege and introductory courses. Holistic grading resulted in mean grades for English 020 of 2.7 (3.0 is considered satisfactory). Average grades of students who have passed English 020 is a C in English 101. Their long-term success in other courses is slightly lower than non-remediated students. Math students who have passed Math 030 tend to earn grades in the D to D+ range in Math 110 or other courses. These results, lower than in past years, reflect an effort to retain a larger percent of remedial students at CNC than has been the case in the past.

The Departments of English and Math have taken significant steps to track the performance of students who have taken remedial courses and to ensure that students are adequately prepared and have taken appropriate coursework on a timely schedule. Recommendations from the Basic Education Committee are before the Faculty Senate to impose further restrictions on enrollments in 100-level courses or above until college-level skills have been demonstrated to the satisfaction of the English and/or Math departments.

Student Development Assessments

A series of surveys of student opinions conducted during the last several years indicates that students consistently report themselves as "satisfied" to "very satisfied" in virtually all areas of their experience at CNC. The average ratings were consistently higher than the national means from user norms for this survey. Survey items related to academic affairs exceeded the national norms most consistently. These items included, among others, questions relating to class size, attitude of faculty toward students, instruction in major, course content in major, availability of instructors, computer services, and laboratory facilities. Only one item regarding "availability of courses when needed" showed consistently modest ratings, which also were somewhat lower than the national average. This result reflects the difficulty of staffing all courses, particularly during peak enrollments, at current faculty strength. CNC will continue to monitor this and all other matters of potential concern through biannual surveys of students.

Christopher Newport College - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	3,388	2,903	2,718	2,766	2,817
Fall Enrollment	4,832	4,647	4,411	4,089	4,145	4,268
First-Time Freshmen Enrolled	539	459	361	306	287	323
First-Time Transfers Enrolled	721	681	630	502	477	575
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	474	495	477	406	446
Master's Degrees Awarded	—	0	0	0	0	0
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 4,832

Male	40.0%
Female	60.0%
In-State	91.2%
Out-of-State	8.8%
Full-Time	57.1%
Part-Time	42.9%
On-Campus	99.9%
Off-Campus	0.1%
Black	10.6%
White	85.5%
Other Races	3.9%
21 and Under	38.9%
Over 21	61.1%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	214
Social Sciences	45
Computer and Information Sciences	41
Education	40
Psychology	30
Public Affairs	21
Letters (English, Literature)	16

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Business and Management	22.2%
Letters (English, Literature)	11.2%
Social Sciences	10.1%
Mathematics	9.8%
Education	8.7%
Psychology	8.5%
Fine and Applied Arts	7.8%
Biological Sciences	6.5%
Computer and Information Sciences	4.7%
Physical Sciences	4.5%
Foreign Languages	3.7%

1989 First-Time Freshmen Admissions

Applied	783
Accepted	705
Enrolled	539
Acceptance Rate	90.0%
Enrollment Rate	76.5%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$13,260	$2,865,488	0.46
1986-87	$156,147	$4,652,522	3.36

All figures as of January 16, 1990
*On-Campus only

Clinch Valley College of the University of Virginia

Clinch Valley College has been faithfully serving the higher education needs of the people of Southwest Virginia since the College opened as a two-year branch of the University of Virginia in September 1954. Beginning with the 1968-69 session, the College became a fully accredited four-year institution of higher learning. Bachelor of Arts degrees were first granted in June 1970 with Bachelor of Science degrees following in 1973. A Continuing Education Program for off-campus and specialized professional instruction was added in 1976. The College has grown from 110 full-time and 126 part-time students in Fall 1954 to a total of 1,594 students in 1989-90.

Since 1970, more than 2,500 Southwest Virginians and others from throughout the nation have been awarded bachelor's degrees from CVC. The College's graduates today hold leadership positions throughout the region, Commonwealth and the nation. CVC alumni are successful in all walks of life, from medicine, the law, and secondary and higher education, to business and the state legislature. The institution's graduates also are excelling in the nation's leading graduate and professional schools, including Johns Hopkins University, UCLA and the University of Virginia.

Purpose of the Institution

Clinch Valley College is committed to providing quality liberal arts education in fulfillment of Thomas Jefferson's vision of academic excellence and public service. The College's central purpose, therefore, is to enrich the mind by stimulating and sustaining a spirit of free inquiry directed to understanding the nature of the universe and the role of mankind in it. Activities designed to quicken, discipline, and enlarge the intellectual and creative capacities, as well as the esthetic and ethical awareness of the members of the College, and to record, preserve, and disseminate the results of intellectual discovery and creative endeavor serve this purpose. In fulfilling it, the College places the highest priority on achieving eminence as a center of higher learning in its region.

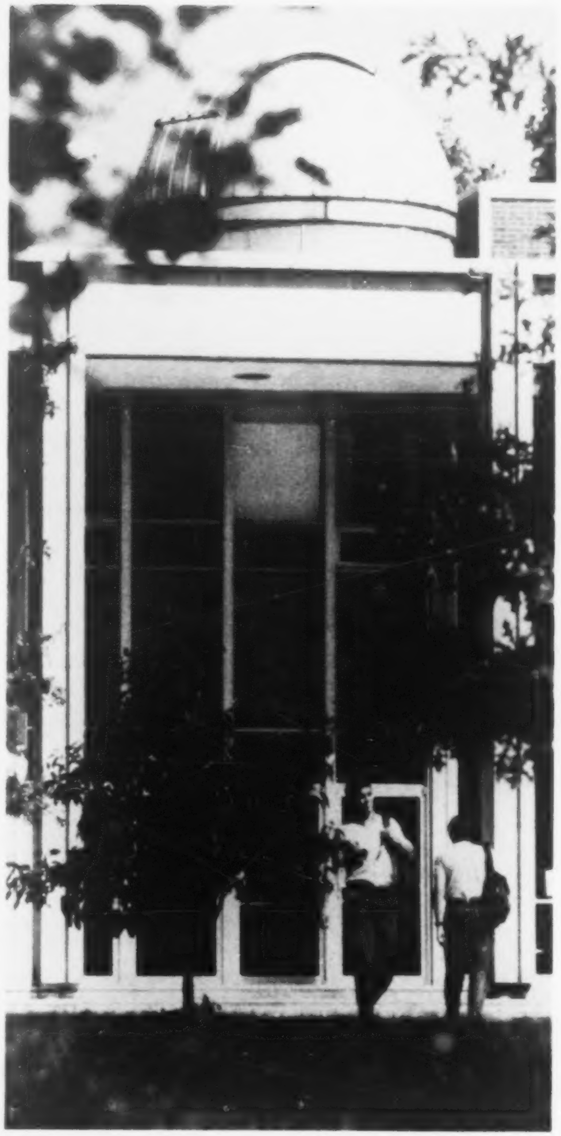
Clinch Valley College is a four-year, coeducational, residential, comprehensive undergraduate college. The purpose of the College is to provide quality education in a small college setting with close and caring faculty relationships. Students are encouraged to develop resources which they may draw upon throughout their lives.

The College has eight academic divisions: Business Studies, Education, History and Philosophy, Language and Literature, Mathematical Sciences, Natural Science, Social and Behavioral Sciences, and Visual and Performing Arts. Baccalaureate programs in many of the liberal arts are offered as well as in the professional and preprofessional areas.

Extent of the Institution's Mix of Instruction, Research and Public Service

Effective teaching is the primary focus of the faculty at Clinch Valley College. While faculty research activities have been limited heretofore, the greatest percentage of increase in financial resources has been allocated to faculty development activities during the 1989-90 academic year.

Clinch Valley College is very sensitive to the public service needs of the community. The College seeks to



provide educational opportunities as well as cultural programs in the arts and the humanities to meet special community needs. Alumni activities, Elderhostels, the Governor's School for the Gifted Programs, Pro-Art, courses for industrial employees, and numerous conferences and workshops provide educational opportunities for the different communities within the College's service area.

The Institution's Future Directions

Clinch Valley College will focus on three broad goals as it looks to the 21st Century. First, it will improve the quality of the undergraduate educational experience. Specifically, improving its assessment and remediation efforts, strengthening the business program, and enlarging its participation in international studies are three of the primary objectives. In addition, CVC has committed itself to a systematic private fund-raising effort with emphasis on scholarships and faculty professional development, both of which serve to strengthen the academic programs.

Secondly, the college will work to improve the satisfaction level of students. A new Office of Enrollment Management has been established and will be responsible for enrollment planning and growth, financial aid, retention, and career planning and placement. The College will be enlarging its program of intercollegiate athletics and increasing the College's level of competition, with a view toward the role that athletics plays in both recruiting and retaining students and in raising the public awareness of the College.

Thirdly, the College expects to enlarge the public service offered to the people of the region. During the 1989-90 academic year, surveys will be made and other data collected to justify the need for expanding the programs the College currently offers. The College indicates that it has preliminary data on the need for graduate programs and will consider proposing a Master of Arts in Teaching and a Master of Liberal Studies, both of which could be started jointly with the University of Virginia. The University has agreed to work with the College to Establish a baccalaureate program in nursing. The College's continuing education program has grown dramatically and has served the region extremely well. The College will consider new ways to enlarge its service to the public through this program as well.

These three objectives, improving the quality of the undergraduate educational experience, improving the satisfaction level of students, and enlarging the institution's public service mission within the region, provide the focus to the College's efforts over the next several years.

Student Assessment

The Student Assessment Program at Clinch Valley College focuses on a comprehensive diagnosis of the individual student. The Student Advising and Assessment Committee espouses this model because (1) CVC's strength lies in its ability to serve the individual student and (2) the size of the institution is conducive to such a model.

CVC launched the student outcomes assessment program with the general education program. The Academic Profile was administered to 100 freshmen in the fall of 1987. The preliminary data suggested that CVC's incoming students were slightly stronger in the humanities area than in the social sciences and natural sciences. CVC students tested higher in college level reading and writing skills than in using mathematical data or critical thinking.

The Student Advising and Assessment Committee began a four-step process of analyzing the general-education program in the fall of 1988: (1) defining goals and objectives for the program, (2) reviewing all course objectives, (3) collecting material from students to determine the match of general education and course objectives with actual academic experiences, and (4) using a standardized assessment instrument to provide a second validation of the general education program.

Six departments initiated assessment activities during the past two years, biology and history the first year followed by education, English, mathematics, and performing arts the second year. The departments used a variety of assessment approaches.

Biology and English

The Biology Department selected the Major Field Achievement Test as their primary assessment tool for their juniors and seniors. It completed the second year of testing at the end of the spring semester and will use the results to formulate curriculum revisions during the 1989-90 academic year. Likewise the English Department completed its second year of testing using the Major Field Achievement Test in Literature with their juniors and seniors. In addition, it requires a 500-word essay of students planning to major in English as the composition assessment tool. The English Department will use the results of both the Major Field Achievement Test in Literature and the composition to make appropriate curricular changes during the next academic year.

Mathematics

The Mathematics Department used the Major Field Achievement Test in Mathematics for the first time during the spring of 1989. During the 1989-90 academic year, it will use the results to re-examine the

current goals for the Mathematics program. The Department will test seniors at the end of the spring semester before making final recommendations on program changes.

Education

The Education Department used the National Teacher Examination and an admissions interview for assessment purposes. The general knowledge and communications core battery tests and the oral interview are used for entrance assessment and the professional knowledge core battery test and the specialty area test for exit assessment. The interview is conducted by the Teacher Education Admissions Committee. The data from the NTE indicated that professional knowledge was the area of greatest strength in the major, with communication skills the weakest. The Teacher Education Admissions Committee recommended greater emphasis on oral communication skills across the curriculum as a result of the interviews. A three-member committee was appointed by the Vice-Chancellor to make recommendations for implementing oral communication assessment collegewide. The committee will also make recommendations for integrating oral communication skills across the curriculum.

History

The History Department developed two capstone courses with major writing and research assignments. Each major is required to write a twenty-page paper in American history and a twenty-page paper in European history. These 400-level courses are generally taken during the senior year. After the first year, the department found that students were not prepared for the magnitude of writing required to be successful in the capstone courses. As a result, it put more emphasis on writing in the 200-and 300-level history courses and encouraged colleagues in other departments to do the same. While the department is currently reading the papers internally, it is moving toward its ultimate goal of having outside readers for these papers.

Visual and Performing Arts

The Visual and Performing Arts Department elected to use portfolios and student exhibits in art and performances in dance, music, and theatre as primary assessment activities. The exhibits and performances will be evaluated by a three-member team consisting of a CVC faculty member in the student's area of concentration, a professional person in the student's area, and a faculty member from another school.

Alumni Survey

Alumni surveys were sent to ten-year graduates in each of the six majors involved in the assessment program—biology, education, English, history, mathematical sciences, and performing arts. The data indicated that graduates felt that their college education had contributed positively to their quality of life. The primary reasons given for attending CVC were the location of the school and the cost. All majors expressed a desire and need for better career planning and placement services from the college.

The alumni data dealing with the contribution of the CVC educational experience to the personal growth of the students in twenty-four different areas provided valuable information to the participating departments. Biology majors ranked highest in their understanding and application of scientific principles

and methods. Following directions and planning and carrying out projects were perceived as the greatest strengths by education majors. English majors received the greatest value from their educational experience in writing and speaking effectively, understanding written information, working independently, learning on their own, following directions, organizing their time effectively, and planning and completing projects. Math majors, on the other hand, felt they were better able to define and solve problems; understand graphic information; apply mathematics in daily activities; manage personal and family finances; lead and guide others; recognize assumptions, make logical inferences, and reach correct conclusions; and persist at difficult tasks than any of the other five majors. History majors felt most capable of any of the majors in using the library; understanding consumer issues; recognizing their rights, responsibilities, and privileges as citizens; and understanding different philosophies and cultures. Performing arts alumni scored highest on working cooperatively in a group, understanding man and his relationship to the environment, caring for their physical and mental health, and understanding and appreciating the arts.

The areas of lowest personal growth of the graduates were equally revealing to the individual departments. English majors were ranked lowest in their ability to understand graphic information. Understanding consumer issues was low for English, math, and education. Likewise, caring for physical and mental health appeared to be neglected by education, English, history, math, and performing arts, even though performing arts had the highest percentage of alumni indicating the institution was helpful in realizing personal growth in this area. With the exception of the math majors, the alumni surveyed felt their educational experience at CVC had contributed very little to their understanding and application of mathematics in their daily activities. English and performing arts majors did indicate very little contribution of the institution to their understanding and application of scientific principles and methods.

Based on assessment data from the past two years, the greatest instructional need is in remedial education. Data show that few students who enter the College underprepared and enroll in remedial work in English and/or math complete the remediation satisfactorily. Likewise, very few of these students graduate from CVC. The student outcomes assessment process will provide a more comprehensive approach to the instructional program for the underprepared student. The College will place greater emphasis on diagnosis, intervention, and faculty development in these areas. In addition, the College plans to (1) hire a trained developmental reading specialist to assist in improving the remedial program in both English and mathematics in the fall and spring semesters and during special programs for high-risk students in the summer, (2) work with the Educational Testing Service to study a more holistic way of evaluating all students' writing, (3) work with the mathematics faculty who teach remedial courses to further define the prerequisites for success in subsequent mathematics courses, (4) conduct both pre- and post-testing with these students, and (5) develop an ongoing dialogue with the secondary schools in the immediate service area. This approach is in keeping with the recommendations of the report of the State Council of Higher Education/Virginia Community College System Joint Task Force on Remediation.

Clinch Valley College has enjoyed success with the affective components of the student outcomes assessment program. Two instruments, in particular, have been useful in helping to measure and improve student satisfaction and retention. The College Student Inventory/Retention Management System (Noel/Levitz) is used with incoming freshmen to provide advisors and counselors with indicators of the student's academic motivation, social motivation, general coping skills, receptivity to institutional help, and other timely information. Freshmen who entered CVC in the fall of 1988 indicated a high receptivity to institutional help, especially social and career counseling. They were less receptive to academic assistance. The students perceived greater strength in study habits, intellectual interests, and academic confidence than in their desire to finish college. They were generally impressed with the buildings and grounds, academic offerings, and the faculty but were less impressed with opportunities for entertainment. Seventy-eight percent of the students perceived CVC's academic standards as being slightly too high for them. The individual and group data are used in developing appropriate strategies for student success, particularly during the freshman year.

The Student Opinion Survey (ACT) was given to all incoming freshmen and to 30 percent of the sophomore, junior, and senior classes. The data from this survey provided valuable information regarding the students' perceptions of the college environment. The students were more satisfied than the national average with academic advising, the institution's concern for them as individuals, the attitude of the non-teaching staff, student voice in college policies, and their own personal security and safety on campus. Many of these areas are those most often linked with student satisfaction and persistence. Students were less satisfied with the variety of courses offered by the college, residence hall rules and regulations, athletic facilities, and general registration procedures. The institution responded immediately to their concerns for the 1989-90 academic year, particularly those dealing with residence halls and registration procedures. All areas where students indicated dissatisfaction with the institution are under study by the Student Advising and Assessment Committee.

The student outcomes assessment program continues to provide valuable information to the institution as it seeks to improve the instructional programs and quality of life for students. The entire college community is responsive to the importance and necessity of student outcomes assessment. The data from the Student Opinion Survey indicate that the students are responsive to the deliberate efforts to improve the quality of academic and social life for them at Clinch Valley.

Clinch Valley College - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	1,215	1,112	1,033	943	901
Fall Enrollment	1,594	1,688	1,463	1,354	1,266	1,191
First-Time Freshmen Enrolled	242	334	280	234	192	174
First-Time Transfers Enrolled	88	101	98	86	64	74
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	184	166	161	156	146
Master's Degrees Awarded	—	0	0	0	0	0
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 1,594

Male	39.2%
Female	60.8%
In-State	94.7%
Out-of-State	5.3%
Full-Time	61.2%
Part-Time	38.8%
On-Campus	73.0%
Off-Campus	27.0%
Black	1.8%
White	97.4%
Other Races	0.8%
21 and Under	47.2%
Over 21	52.8%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	74
Education	40
Social Sciences	17
Letters (English, Literature)	10
Mathematics	7
Life Sciences	4
Physical Sciences	3

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	26.4%
Letters (English, Literature)	13.7%
Education	11.3%
Business and Management	10.7%
Mathematics	10.2%
Computer and Information Sciences	5.6%
Physical Sciences	5.0%
Psychology	4.7%
Fine and Applied Arts	4.0%
Biological Sciences	3.9%
Foreign Languages	3.4%

1989 First-Time Freshmen Admissions

Applied	462
Accepted	393
Enrolled	242
Acceptance Rate	85.1%
Enrollment Rate	61.6%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	0	$2,863,488	0.00
1986-87	0	$4,652,522	0.00

All figures as of January 16, 1990
*On Campus only

The College of William and Mary

The College of William and Mary, founded by royal charter in 1693, is the second oldest institution of higher learning in the United States. After the American Revolution, it continued under private auspices. The College first received support from the Commonwealth in 1888, and in 1906, by act of the General Assembly, became a state institution with its Board of Visitors appointed by the Governor. In 1968 William and Mary was recognized as a university. The Board of Visitors of the College also has responsibility for a two-year junior college, Richard Bland College, located in Petersburg.

William and Mary today is a coeducational state university serving the Commonwealth and the nation. It consists of the Faculty of Arts and Sciences and the Schools of Business Administration, Education, Law and Marine Science. Besides the baccalaureate in arts, science, and business administration, William and Mary offers the master's degree in 17 fields and the doctorate in eight, in addition to the Juris Doctor in law. The undergraduate student body numbers approximately 5,400; the graduate and advanced professional enrollments number 2,138 students. Approximately 66 percent of the students are from Virginia; the remainder are from some 36 states and foreign countries.

Although the main campus of William and Mary is in Williamsburg, the school of Marine Science located 15 miles away at the Gloucester Point campus is an integral part of the College of William and Mary. As the Virginia Institute of Marine Science, it merged with the College in 1979.

Purpose of the Institution

A commitment in all programs to liberal education is the source of institutional coherence. William and Mary emphasizes, in its undergraduate, graduate and professional programs, the development of the student as a whole individual. The College notes that the criterion of excellence in teaching and learning, in class and out of class, is at the heart of the educational process. With such objectives, and with a selective and limited enrollment, William and Mary strives to provide its students with a quality education and to make a significant contribution to the Commonwealth of Virginia, the nation, and the world through the development of independent, responsive and responsible individuals.

William and Mary offers a highly selective full-time residential undergraduate program of national repute. In addition, it seeks to offer equally selective graduate and advanced professional programs in a number of fields appropriate to its history and location. About 83 percent of the undergraduates are in Arts and Sciences and Education, the remainder in Business Administration. All undergraduate students receive a firm grounding in the Arts and Sciences in their first two years. William and Mary emphasizes close faculty-student interaction and attempts to provide relatively small classes at the undergraduate level. The existence of post-baccalaureate programs brings to William and Mary the curriculum benefits normally associated with larger institutions, such as the stimulation provided by research and publication as well as access to more sophisticated library and laboratory facilities.

At the advanced level, William and Mary offers the Juris Doctor and doctorates in American studies, computer science, history, marine science, psychology, physics, and education. A Ph.D. program in Applied Science will begin in the fall of 1990.

The Marshall-Wythe School of Law traces its ancestry to studies in the Law first offered at the College in 1779. Affiliated with the School of Law is the Institute of Bill of Rights Law, which emphasizes the study of the First Amendment.

The education program has been of importance to Virginia since 1906, when the Commonwealth assumed responsibility for the College with a primary objective to ensure a source of trained public school teachers throughout the state.

In its history program, William and Mary benefits from its significant library holdings on the Colonial period, from the growth of Williamsburg as a center for historical research since the founding of the Colonial Williamsburg Foundation in 1926, and from the campus presence of the Institute of Early American History and Culture and the Commonwealth Center for the Study of American Culture. The Doctor of Psychology program is offered jointly by William and Mary, Old Dominion University, Norfolk State University, and the Medical College of Hampton Roads in association with Eastern State Hospital.

For half a century William and Mary has made the marine interests of the Commonwealth a special concern, initially through the Virginia Fisheries Laboratory and subsequently with the Virginia Institute of Marine Science at Gloucester Point. William and Mary's highly respected Ph.D. program in physics and its Ph.D. program in computer science are closely associated with the National Aeronautics

and Space Administration's Langley Research Center in Hampton and the Continuous Electron Beam Accelerator Facility (CEBAF) in Newport News.

William and Mary also offers the professional degrees of Master of Business Administration and Master of Education and master's degrees in American studies, anthropology, applied science, biology, chemistry, computer science, education, English, government, history, law and taxation, marine science, mathematics, physics, psychology, and sociology. In addition the School of Business Administration offers the Executive Master's of Business Administration degree, as well as part-time M.B.A. program study opportunities on the Peninsula.

By combining support from the Commonwealth with private resources, the College has developed a series of significant academic initiatives.

The Roy R. Charles Center for Honors and Interdisciplinary Studies, established in 1986 through state funding and enhanced in 1987 by a major private commitment, will help the university maintain its focus on the undergraduate student. A significant commitment in 1987 that partially endowed the Wendy and Emery Reves Center for International Studies will enable William and Mary to provide its present and new curricular offerings with an international perspective; to host distinguished scholars, diplomats, and international students; to provide visiting and resident scholars with research opportunities in areas of international history and politics; and to create a forum for debates and lectures on global issues. A growing Public Policy Program has encouraged students to consider careers in public service, while drawing national political and economic leaders to campus as speakers.

Extent of the Institution's Mix of Instruction, Research and Public Service

William and Mary's instructional emphasis is on providing its undergraduate students with an education grounded in the arts and sciences, and its graduate and advanced professional students the special skills needed for service in the public and private sectors.

William and Mary conducts both basic and applied research. Its research activity involves both contracts for programs and individual grants to faculty members. In 1988-89 the College, including the Virginia Institute of Marine Science, expended $10.5 million in research funds.

William and Mary recognizes its public service responsibility to the Commonwealth by offering educational and cultural programs through the Office of Special Programs; an extensive marine advisory program; and expert consultation in a variety of educational, scientific, legal, and business fields.

The Institution's Future Directions

In the decade ahead William and Mary will continue to emphasize its commitment to excellence in all of its educational offerings. New programs at the undergraduate and graduate levels in Applied Sciences, American Studies, Public Policy and International Studies will add new depth and breadth to William and Mary's academic endeavors. A focus on enhancing undergraduate liberal education through individualized educational experiences and undergraduate research opportunities will enable William and Mary to educate future leaders for the Commonwealth and the nation.

Student Assessment

William and Mary's student assessment program was established in the fall of 1987 to evaluate the success of its undergraduates in meeting the educational goals of the College. Assessment activities are overseen by a steering committee of representatives from the Faculty of Arts and Sciences, the Schools of Business Administration and Education, the student body and the administration. Four subcommittees report to the Steering Committee and represent the four major components of William and Mary's Assessment Plan: general education, the concentration, student attitudes and values, and alumni follow-up. To date, more than one hundred members of the faculty have participated in efforts to assess the quality of education offered to William and Mary students.

General Education

William and Mary's assessment program includes the assessment of general education. Oversight for this component of the program is the responsibility of the Subcommittee on General Education, made up of members of the Faculty of Arts and Sciences and School of Education, representing a variety of disciplines in the humanities, social sciences and physical sciences. Information on student attainment of general education objectives has been gathered so far from two sources: the portfolio analysis project and the senior survey. Plans are in place to begin alumni surveys in 1989-90.

Portfolio Analysis

A qualitative assessment procedure which involves detailed analysis by faculty of student work samples, William and Mary's portfolio analysis project is designed to gather information about student attainment of general-education objectives. These objectives, derived from the College's Statement of Purpose, are defined in a document developed by the Student Assessment Subcommittee on General Education. The objectives involve a series of detailed performance criteria; for example, William and Mary students are expected to write clear and effective prose that's informative and persuasive, observes grammatical and stylistic norms, and follows canons of sound reasoning.

Although many colleges and universities are in the process of developing portfolio projects, the application of this qualitative procedure to student assessment is still highly experimental. The challenge for the William and Mary assessment program during the last two years has been to develop a portfolio project which would provide reliable and useful information about the degree to which students at the institution gain the knowledge, skills, and values expected of every liberally educated graduate. In its most recent phase, faculty scorers judged the portfolios of a random sample of ten percent of the Class of 1989 and found that at least 90 percent of the seniors have opportunities to write and to think critically and 97 percent of these students demonstrate these skills at the very least with competence.

Senior Survey

As part of the William and Mary's student assessment program, a survey of the 1989 graduating seniors was conducted by the Office of Student Assessment. Almost 90 percent of the respondents rated their overall experience at William and Mary as "excellent" or "good," and 82 percent of the respondents said their college experience had met or exceeded their expectations.

Respondents generally rated their academic experience very positively. Seventy percent of the respondents feel that they were a part of an intellectual community while at the College, and 91 percent felt that their college experiences helped them develop intellectual curiosity. Almost 78 percent of the respondents were planning to matriculate at a graduate or professional school at some point in the next five years. The quality of instruction overall was perceived as very strong at William and Mary. Eighty-nine percent of respondents were satisfied with instruction outside their major, and 87 percent were satisfied with instruction inside their major. Similarly, seniors in this sample were satisfied in large majority (83 percent) with faculty attitudes toward them.

Survey data show also that respondents are generally socially responsible and involved in the world. Over 85 percent of the respondents are registered to vote, and 75 percent had voted. Over 83 percent make an effort to keep up with national and international events, 92 percent think it important to be involved in civic affairs, 79 percent feel that appreciation of the fine and performing arts is an important part of their lives, and 81 percent feel that people should feel obligated to recycle materials.

One area in which the respondents were not as knowledgeable as might be hoped was in the major scientific issues of our time, which will influence every aspect of our society. When asked whether they felt competent to participate in an informal conversation with friends on these issues, the positive responses were as follows: the Strategic Defense Initiative, 30 percent; the greenhouse effect, 49 percent; the ozone problem, 47 percent; renewable energy sources, 43 percent; genetic engineering, 20 percent; and superconductivity, 10 percent.

Respondents were strong sometimes in their negative responses to certain college experiences. Academic advising in general, and freshman/sophomore advising particularly as they had experienced it, was identified as an area of concern. Registration procedures and course enrollment were highlighted by respondents as issues which need to be improved. Food services and several other student services were not rated favorably by many seniors. Fortunately, some of the concerns raised by seniors, most notably freshman/sophomore academic advising and registration, are already in the process of being improved. The institution is making use of these findings to address identified problems.

Concentration Assessments

The first five pilot departments completed their program assessments in May, 1989. The accounting program in the School of Business Administration used surveys of alumni and graduating seniors, studied student job placement, and administered the certified Public Accountants' Level 2 Achievement Test in order to evaluate its program and student outcomes. Results from the senior survey and the alumni survey show overall satisfaction with the program, particularly with the faculty, the reputation of the program, the positive learning environment, the employability of graduates, the challenging curriculum, and the high standards of the program. The number and type of firms who conduct regular on-campus recruiting visits indicates the desirability of accounting program graduates. Ninety-four percent of

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graduating senior concentrators took the American Institute of Certified Public Accountants' Level 2 Achievement Test and achieved a satisfactory level of proficiency in accounting. The program assessment uncovered several problem areas, among them the adequacy of the taxation curriculum and computer integration in the curriculum. Accounting faculty are examining ways to address these problems.

Chemistry

William and Mary's Chemistry Department involved external evaluators, conducted alumni and graduating senior surveys, studied student placement information, and used results of the Graduate Record Examination Chemistry Test and junior and senior research papers in order to evaluate its program and student outcomes. Results from the above sources all show that Chemistry has a strong program. The senior survey and alumni survey indicate an overall high level of satisfaction with the program. Scores of concentrators on the Graduate Record Examination Chemistry Test show that students are achieving the Chemistry Department goals of analytic and quantitative thinking and problem solving and a broad range of chemical knowledge. Assessment of junior and senior research papers further confirms this finding. Several areas of direct student and alumni concern were identified: concentration advising, preparation for employment, increased research space and instrumentation, and the need to establish and further strengthen high school contacts and relations. The Chemistry Department has developed a plan to address these concerns.

Elementary Education

The Elementary Education program used graduating senior and alumni surveys, student achievement in student teacher performance evaluations and the National Teacher Examination, and job placement data to evaluate its program and student outcomes. Results indicate overall high performance on the students' part and satisfaction with the program. All concentrators not only met but far surpassed the established state criteria levels for performance on the National Teacher Examination in the areas of general knowledge, professional knowledge, communication skills, and the elementary specialty examination. In addition, all concentrators who sought certification successfully completed Virginia's Beginning Teacher Assistance Program. The program faculty are examining ways to meet student demand for more preparation in classroom management and more time in student teaching.

Philosophy

The Philosophy Department involved external examiners, conducted surveys of alumni and graduating seniors, reviewed its curriculum in comparison to peer institutions and read senior student portfolios in its evaluation of the program and student outcomes. All indicators point to a very strong program. The evaluation of senior portfolios showed that all students examined were attaining to a very high degree the educational goals set by the Philosophy Department for its concentrators. Philosophy faculty are currently addressing the concerns of some students and alumni by reviewing concentration advising and incorporating Women's Studies and feminist perspectives into their courses. They plan also to develop new curricular emphases, particularly in eastern philosophy.

Sociology

The Sociology Department involved external examiners, conducted surveys of its seniors and alumni, reviewed its curriculum in comparison to peer institutions, and used portfolio analysis to evaluate its program and student outcomes. Both alumni and students were positive about their experience with the discipline and the department. However the review led to a general consensus that the Sociology Department should restructure its undergraduate curriculum, in part to be more responsive to the diverse interests and career paths of students. Courses will be changed to reflect more accurately contemporary issues and concerns, and tracks will be introduced to appeal more to today's students.

Concentration assessments will be conducted by the remaining undergraduate departments in the years ahead. William and Mary will continue to gather information from these and the other assessment techniques. Together these data provide a comprehensive picture of how well the institution meets its goals of educating its students for the twenty-first century. William and Mary is committed to enhancing further its quality and effectiveness and its student assessment program provides an appropriate vehicle for institutional improvement.

William and Mary - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	7,337	7,173	6,933	6,631	6,590
Fall Enrollment	7,542	7,372	7,192	7,008	6,676	6,640
First-Time Freshmen Enrolled	1,266	1,197	1,229	1,333	1,146	1,136
First-Time Transfers Enrolled	99	104	104	128	103	88
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	1,180	1,188	1,083	1,155	1,140
Master's Degrees Awarded	—	363	301	294	276	300
Doctor's Degrees Awarded	—	31	43	41	43	40
First Professional Degrees Awarded	—	160	174	150	170	158

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 7,542	
Male	46.5%
Female	53.5%
In-State	66.3%
Out-of-State	33.7%
Full-Time	86.2%
Part-Time	13.8%
On-Campus	98.0%
Off-Campus	2.0%
Black	6.4%
White	86.5%
Other Races	7.1%
21 and Under	64.0%
Over 21	36.0%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*	
Social Sciences	343
Business and Management	192
Letters (English, Literature)	112
Life Sciences	94
Psychology	78
Multi/Interdisciplinary Studies	62
Physical Sciences	55

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)	
Social Sciences	21.1%
Letters (English, Literature)	12.7%
Business and Management	10.0%
Education	9.5%
Law	8.1%
Foreign Languages	7.8%
Physical Sciences	6.6%
Fine and Applied Arts	5.7%
Psychology	5.6%
Biological Sciences	4.8%
Mathematics	4.6%
Computer and Information Sciences	2.2%

1989 First-Time Freshmen Admissions	
Applied	9,446
Accepted	2,538
Enrolled	1,266
Acceptance Rate	26.9%
Enrollment Rate	49.9%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$755,660	$55,408,579	1.36
1986-87	$2,860,533	$179,451,325	1.59

All figures as of January 16, 1990
*On-Campus only

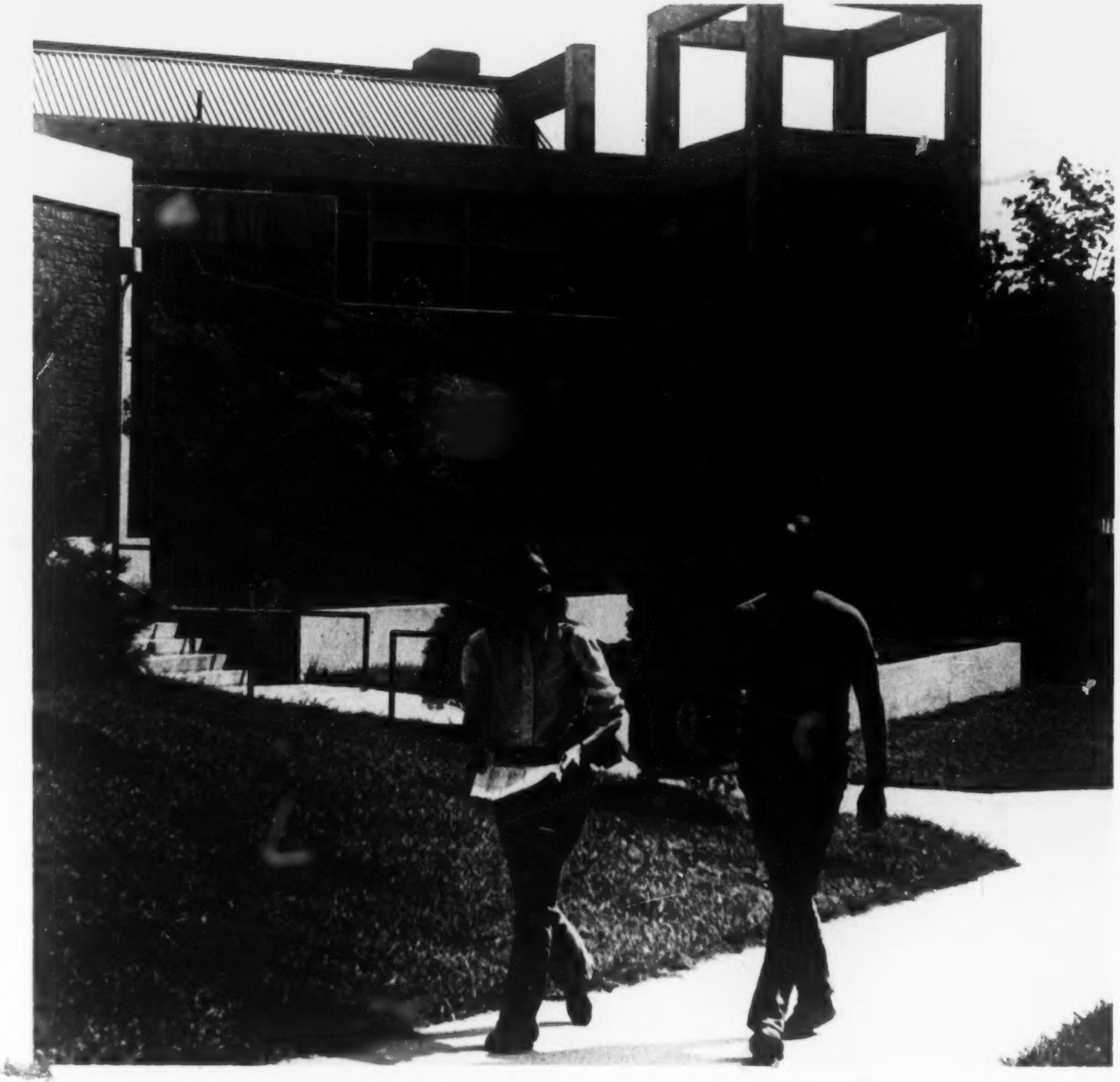
George Mason University

With the nation's capital at its doorstep, George Mason University, the state university in Northern Virginia, is in the mainstream of the political, artistic and professional life of the country.

A young, vigorous institution building toward the future, George Mason University is, however, rooted in the academic traditions of Virginia. Established in 1957 under the aegis of the University of Virginia, it was named George Mason College after the Virginia statesman and patriot. The 1966 General Assembly changed its status from a two to a four-year institution. The college granted its first bachelor's degrees in 1968 and the first master's in 1971. On April 7, 1972, it became an independent state institution. In 1979, the General Assembly authorized the acquisition of a School of Law. Doctoral status was granted to George Mason in 1980, and the first doctoral degree was conferred in 1983.

The university grants 97 undergraduate, graduate and professional degrees, including a law degree, the Juris Doctor. Doctoral degrees are offered in economics, education, environmental biology and public policy, applied psychology, information technology, public administration, conflict analysis and resolution, and nursing administration.

With 1,000 full and part-time faculty members, the university serves more than 19,700 on- and off-campus students through the College of Arts and Sciences, the College of Education and Human Services, the School of Business Administration, the



School of Information Technology and Engineering, the School of Nursing, the Graduate School, the School of Law and the Division of Continuing Education. In addition, over 9,000 students enroll for the summer session.

In its early days, George Mason University primarily served commuting students from Planning District Eight. Though it has on-campus housing for only 2,000 students, its current student body has students from 42 states and 83 foreign countries. Of the 18,965 on and off-campus students who were enrolled at George Mason in Fall 1988, there were 9,995 full-time students and 8,970 part-time students.

There are more than 100 recognized student organizations serving a student body of great diversity and interests. Student life on the campus has assumed the characteristics of a metropolitan university.

Purpose of the Institution

George Mason University provides a rigorous traditional education, enabling students to develop critical and analytical thinking. The university seeks to prepare students to interpret the complex questions facing them and society. It further seeks to meet the needs of students by providing the opportunity for innovative educational methods and programs, and it will enhance these programs with undergraduate, graduate and professional courses of study that are cross-disciplinary.

Its faculty must excel in teaching, be active in pure and applied research, and be responsive to the needs of the community.

Northern Virginia is a complex setting for a public university. With a population approaching two million, the region is a network of ''urban villages'' served by a knowledge-driven economy. The Northern Virginian lives and works in an environment combining historical and contemporary significance. Mount Vernon, Washington's estate, and Gunston Hall, home of George Mason, exemplify the tradition of an area that is experiencing explosive economic and population growth. The urban landscape is marked by the presence of firms and organizations such as IBM, Mobil Oil Corporation, Martin Marietta, the Jet Propulsion Laboratory of the National Aeronautics and Space Administration, the Software Productivity Consortium, the U.S. Geological Survey, and Wolf Trap Farm Park for the Performing Arts.

Extent of the Institution's Mix of Instruction, Research and Public Service

George Mason University is pursuing four complementary paths: the creation of a strong and vital undergraduate program to ensure the full development of its students, anticipation of the needs of the future through an emphasis on high technology, exposition of the public policy implications of new societal directions, and promotion of the cultural needs of the region through an emphasis on the performing arts and the humanities.

The University views research as an integral part of the educational enterprise involving both students and faculty. To encourage research, the George Mason Institute has been established to work in partnership with private industry and other appropriate public and private organizations for mutual benefit in the application and advancement of science and computer technology. To support research of public policy issues, the University has established, among others, the Center for Study of Market Processes; the Center for Government, Society and the Arts; and the prestigious economics research group, the Center for Study of Public Choice.

The University is a partner in the development of the cultural and intellectual life of the surrounding community. During 1987-88, there were nearly 30,000 participants in the workshops, conferences and short courses organized by the Division of Continuing Education. The University also offers a wide variety of plays, orchestral and dance concerts, art exhibits and lectures for community enjoyment. In Fall 1990, the $30 million Center for the Arts will open, serving as a focus for university and community cultural life.

The Institution's Future Directions

Rooted in the past, but understanding the needs of the region and future development of the Commonwealth, George Mason University is poised to meet the challenges of the coming decade. It is exploring new approaches to a variety of needs: a new curriculum for undergraduate education, new advanced degrees supportive of the Information Age, new openings on the cutting edge of telecommunications, new arrangements between the corporate world and higher education, new ways to serve the region's network of urban centers, and new cooperative arrangements with other areas of state government.

Looking toward the 21st century, the university now offers a doctoral program in information technology. This is supported by six master's degrees in fields dealing directly with the technological challenges of the future. A comprehensive internal assessment has sharpened the focuses of the University and enabled it to emerge stronger and richer in talent. George Mason University has set its goals and is preparing to meet the challenges not only of the 1990s, but of the new century to follow.

Student Assessment

George Mason University is committed to quality undergraduate education. Quality is assured through the hiring and retention of high quality scholars as teachers and through continual evaluation of academic and student development programs. These programs are assessed in numerous ways, including periodic reviews of program goals and priorities, the annual budget review process, curriculum committees, and self-studies for accreditation. In addition the assessment program at George Mason focuses specifically on student outcomes in general education, in the majors, and in general institutional effectiveness. Program improvement is the fundamental driving principle behind the assessment program. The University holds itself accountable to the citizens of Virginia by maintaining the centrality of this goal.

General Education

George Mason has been experimenting with new approaches to general education since 1981, when planning was undertaken for the Plan for Alternative General Education (PAGE) Program. In 1985, the University also began to develop the Bachelor of Arts/Sciences Integrated Curriculum (BA/SIC) Program. PAGE and BA/SIC offer alternatives to the "cafeteria" approach to general education. Experiences with these programs culminated in a major review of general education by a special task force appointed in the fall of 1986. The task force agreed that the general education requirements of George Mason should ensure that a student who graduates from the University will have

1. become familiar with the diverse ideas and values of the Western tradition and developed an awareness of the global context within which this tradition has evolved and continues to live;

2. acquired an understanding of American culture and the role of the United States in the modern global order;

3. achieved university-level competencies in writing, speaking, reading, listening, analytic reasoning and library research;

4. become aware of the different ways and methods of knowing of the humanities, social sciences, and natural sciences;

5. become aware of and sensitive to issues of race, class, and gender; and

6. explored the moral dimensions and ethical implications of their chosen area of specialization.

To achieve these outcomes the task force has proposed a four-year, ten-course multidisciplinary core of general education. The approach is based on the idea that general education should be viewed as a process that spans a student's university career; that it should provide breadth and depth of knowledge; that it should be structured in a developmental and cohesive way; and that it should provide students with the skills, information and sensitivities necessary for our times.

The assessment of the proposed general education curriculum is based in part on experiences with the assessment of the PAGE and BA/SIC programs. One lesson learned from evaluating these programs is the futility of using non-course related tests, such as nationally standardized instruments for general education, and the University will not use these in the evaluation of the core curriculum. Rather, it is committed to developing assessment techniques which address and contribute to what goes on in the classroom affecting students. Over the next three years, a major grant from the Fund for the Improvement of Postsecondary Education (FIPSE) and a summer start-up grant from the State Council of Higher Education will provide the resources needed to build assessment techniques into the curriculum. We anticipate these techniques taking several forms, including course assignments, simulations, and group interviews which can be used both to grade an individual student and assess the overall impact of the program.

Another finding of the evaluation of the PAGE program is that PAGE students are more likely than non-PAGE students to report that they have gained a broad awareness of different academic disciplines and different cultures and ways of life. Since these outcomes are specifically identified goals of the proposed core, developing courses based on the PAGE model should produce similar desirable results.

The Major

George Mason University has engaged in systematic academic program evaluation since 1982, with a five-year cycle during the course of which each program at the University undergoes a systematic study. The plans for assessing student outcomes in the major have been merged with existing program reviews.

During the 1987-88 academic year, each department or school which offers an undergraduate major was asked to generate a plan for assessing student learning in the major field. In developing the plan for the major, the departments were asked to specify the goals of the undergraduate program and the knowledge, skills, and values the faculty expect students who complete the program to acquire. Departments were also asked to show how success in meeting those objectives will be assessed. In doing so, they could select standardized instruments like professional licensing examinations or other measures, including comprehensive examinations, internships, or theses.

During the 1988-89 academic year, each department or school plan was critiqued. Members of the assessment committees met with department chairs and faculty to discuss the strengths and weaknesses of the plans. Primary attention was given to the programs in the fifth and first years of the review cycle. In general, the department plans shared a common flaw, namely, a failure to understand the differences between evaluating individual students and using student outcomes to assess programmatic success. Meetings with departments will be continued during the 1989-90 academic year to develop assessment plans further and to assist departments to develop techniques for collecting data and for providing meaningful interpretation of the data collected.

The assessment program will develop a model survey instrument for departments to use with graduating seniors. Information gathered from this source over a period of time will provide reliable information about student satisfaction about their academic program. A number of departments intend to ask their graduating seniors to take the Major Field

Patriot Center
George Mason University

Achievement Tests. This will give the departments some sense of how their graduates perform relative to other major programs across the country.

Institutional Effectiveness

Life outside of the classroom is an integral part of the education of the George Mason student. As a consequence, the University is concerned with the ways in which student life programs contribute to student learning, using a variety of survey instruments to assess the University's performance in this area. Among the instruments that have been developed are the entering student survey and the alumni survey. The entering student survey was administered for the first time in fall 1988. A survey of alumni one year after graduation was conducted in spring 1988. The one-year-out alumni survey was repeated this spring, and the five-year-out alumni survey is planned for 1989-90.

The first administration of the alumni survey asked about present activities and future plans; about educational, career, and personal expectations before entering the University; and whether those expectations were met. This was a first attempt to follow baccalaureate degree-holders one year after graduation to obtain this kind of information. Unfortunately, the response rate was only 35 percent. Because of the limited response, data from this administration of the survey are considered preliminary. Any inferences drawn from these data should be made with this in mind.

Of those responding to the survey, one-fifth were enrolled in advanced degree programs and 75 percent said they would consider further study at GMU. Nearly three-fourths said they attended George Mason to develop their educational interests and nearly that many (68 percent) said because of GMU they did so. A very large proportion of alumni (86 percent) said they attended Mason to increase their knowledge and understanding in an academic field, and almost that same number (83 percent) agreed that because they attended GMU they had accomplished that goal. Two-thirds indicated that they held the goal of becoming informed, well-educated citizens, and 61 percent said they achieved that goal.

GMU alumni also reported success attaining personal goals. Independence and self-reliance were identified as goals by 65 percent of alumni, and 58 percent felt they met that goal while at Mason. Just under one-fourth said they had the goal of improving their ability to meet and get along with others, but 39 percent said they achieved that goal because of GMU. Few alumni said they attended GMU to become more actively involved in the community (eight percent), but 11 percent said they in fact became more active because of GMU.

Nearly 90 percent of Mason alumni who work full time live in northern Virginia, and two-thirds work in this region. Sixty-five percent of all respondents are employed in administrative or professional positions. Mason alumni come to the University with high expectations regarding their careers. A full 84 percent said they attended Mason to increase their chances for career development, and 87 percent said they wanted to improve their job skills. Most students (71 percent) felt they did increase their chances for career development because of Mason, but less than half (40 percent) felt they gained the job skills needed for their jobs. It is difficult to interpret this latter finding. Did these respondents already possess the skills needed for their jobs? Did they take jobs unrelated to their course of study? Or are there alternative explanations? With the limited data at hand, the University cannot answer these questions.

Well over half (61 percent) felt their degree was very helpful in getting their job, a somewhat lower figure than the 72 percent who had that expectation, but given the fact that 39 percent of Mason students have jobs before graduating, this is a substantial percentage. While at GMU 73 percent of the alumni responding thought that their college education would be well utilized in their job. Less than half (46 percent) feel that their present job utilizes the knowledge and skills that they learned in college. Sixty-five percent plan to remain in their current field of work for the foreseeable future, and 70 percent feel they are challenged by the work they are presently doing. In the future, linking alumni data with entering student data may clarify student career needs and expectations, and developing a longitudinal database will clearly assist in planning appropriately.

Results from the entering student survey are preliminary and will be reported to the University community at the beginning of the academic year, 1989-90.

All of these surveys will be linked with other institutional data, e.g. admissions, registration and degree data, in a student cohort tracking system. This system will perform the following functions:

(1) determine the rates and correlates of student persistence and attrition;

(2) track measures of academic performance and progress;

(3) link information on student academic performance with responses from attitudinal surveys; and

(4) provide a data resource for answering questions about the academic progress of students.

Future Plans

Course-embedded instruments will become the primary source of information on the success of the general-education program. These test instruments will be buttressed by appropriate student surveys as well.

The assessment of majors will vary from department to department, but most graduating seniors will probably complete an exit interview or survey and participate in a culminating experience during the senior year.

The longitudinal student cohort tracking system will require information from entering students, alumni, and enrolled students. A data collection system is already in place for the first two; the University will develop a data collection methodology for current students in the near future.

The success of the assessment plan at George Mason relies on the "ownership" of the program by the faculty, staff and students. Faculty and staff develop tests and survey instruments as well as identify anticipated student outcomes. The involvement of students has not been at the necessary level, and this fall, a student advisory committee will act as a sounding board, present ideas, and generally give advice to the various assessment committees.

George Mason University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	13,681	13,010	12,629	12,023	11,231
Fall Enrollment	19,747	18,965	18,112	17,652	17,094	15,548
First-Time Freshmen Enrolled	1,924	1,823	1,721	1,627	1,483	1,490
First-Time Transfers Enrolled	1,831	1,715	1,770	1,771	1,915	1,699
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	2,032	1,862	1,835	1,743	1,511
Master's Degrees Awarded	—	698	576	516	468	408
Doctor's Degrees Awarded	—	28	22	14	6	2
First Professional Degrees Awarded	—	173	195	168	155	127

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 19,747

Male	44.6%
Female	55.4%
In-State	87.0%
Out-of-State	13.0%
Full-Time	54.5%
Part-Time	45.5%
On-Campus	98.5%
Off-Campus	1.5%
Black	4.9%
White	81.5%
Other Races	13.6%
21 and Under	34.8%
Over 21	65.2%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	443
Social Sciences	265
Letters (English, Literature)	174
Computer and Information Sciences	162
Health Sciences	139
Education	118
Psychology	107

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	19.3%
Letters (English, Literature)	13.2%
Business and Management	11.7%
Letters (English, Literature)	12.1%
Education	6.1%
Mathematics	6.0%
Psychology	5.3%
Computer and Information Sciences	5.0%
Physical Sciences	4.9%
Law	4.5%
Foreign Languages	4.1%
Biological Sciences	4.0%

1989 First-Time Freshmen Admissions

Applied	6,693
Accepted	4,856
Enrolled	1,924
Acceptance Rate	72.5%
Enrollment Rate	39.8%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$151,729	$55,408,579	0.27
1986-87	$3,423,611	$179,451,325	1.91

All figures as of January 16, 1990
*On-Campus only

James Madison University

James Madison University was founded in 1908 by the Virginia General Assembly as the State Normal and Industrial School for Women at Harrisonburg. Since its founding, the institution's name has changed several times to reflect its changing character and mission. Authorization to award graduate degrees was received in 1954, and the institution became fully coeducational in 1966. In 1977, the General Assembly changed the name to James Madison University in recognition of its achievement of university status.

JMU's enrollment exceeds 10,700 on-campus students, 78 percent of whom are from Virginia. Successful applicants must be both academically prepared and potentially able to contribute to the diversity of the University community. As a predominantly undergraduate institution, the curriculum offers a strong program of general studies which prepares a student to major in the humanities, sciences, education and psychology, business, communication, the arts, and health and human development.

Purpose of the Institution

The mission of James Madison University is to provide a comprehensive and quality undergraduate educational, cultural and social experience for students. JMU offers a graduate program which enriches the undergraduate program and seeks to address the needs of the region.

JMU is a selective institution composed of students who can contribute to, and benefit from, its programs. Committed to superlative teaching, it gives students the opportunity to develop broad skills and in-depth knowledge necessary for a liberal education. The University offers academic programs designed to prepare students for the 21st Century.

The University recognizes the importance of raising expectations of students and of a proper balance between challenge and support. Talented and dedicated faculty and staff members present learning experiences both inside and outside the classroom that facilitate the affective and cognitive development of a diverse student body.

James Madison University is committed to the following goals:

(1) a broad liberal arts program for all students;

(2) integration of the liberal arts into each student's major, thus preparing the student to become a dynamic contributor to the 21st Century;

(3) an extensive student development program committed to affective learning through campus-centered programs;

(4) learning experiences which provide students with a global consciousness in a rapidly changing and technologically oriented world;

(5) a support system that presents an attractive campus environment, recognizes individual student differences and presents prompt, personal responses to student needs;

(6) professional growth opportunities for faculty and staff so they can realize their full potential and contribute to the University and the education of a diverse student body;

(7) active research and service programs that are expected and encouraged of faculty;

(8) accountability for the proper and wise use of resources, through the application of effective assessment programs;

(9) a commitment to a high-quality and well-maintained plant which includes the latest in educational technology; and

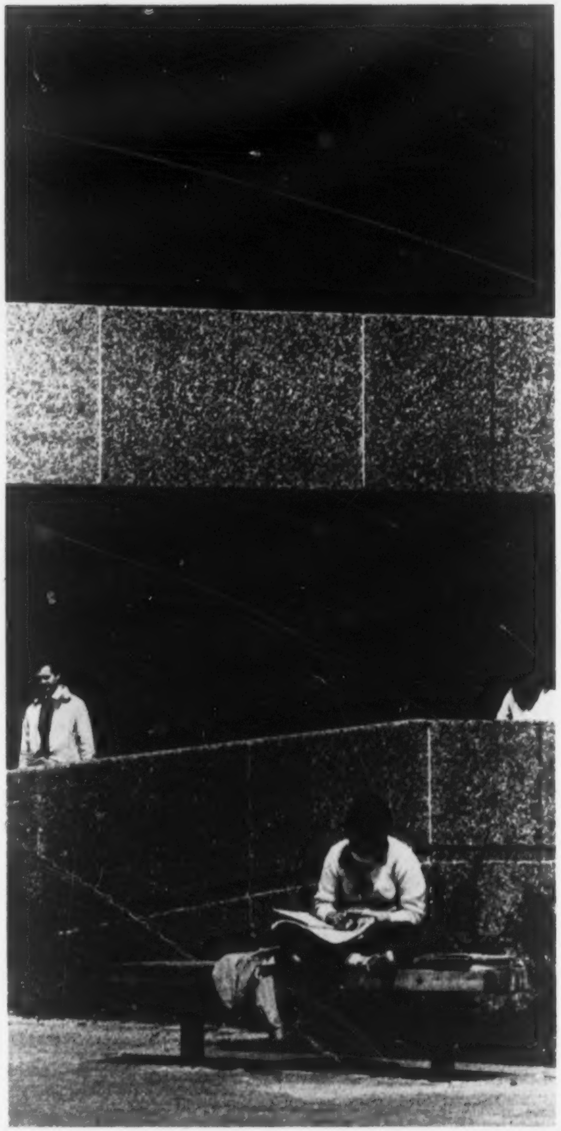
(10) a recognition that the University is composed of many constituencies. Advice, support, and financial assistance will be sought from these constituencies in formulating and implementing the University's plans.

Extent of the Institution's Mix of Instruction, Research and Public Service

The University's major commitment is to superlative teaching. It recognizes that a sound educational effort emphasizes a spirit of honest inquiry, both in the classroom and elsewhere.

The importance of research and public service, however, is also recognized. All types of research are encouraged on the James Madison University campus, although the University normally concentrates on research which shows promise of immediate and direct benefit to student learning. The University is engaged in a variety of public service activities benefiting professional groups and industrial, commercial, and educational communities, as well as cultural programs which benefit the general community.

James Madison offers 59 academic programs at the undergraduate level, 31 at the master's level, and the Educational Specialist in school psycholoy and counselor education. Approximately $1,000,000 in grants are received annually to support research in the areas of the arts, natural sciences, social sciences, business and education.



The Institution's Future Directions

The future of the academic program at James Madison University will be dictated by the needs of society. Continuing efforts will be made to anticipate the particular areas of expertise that will be in demand in the future, and the University's curriculum will be adjusted accordingly.

The University supports the vision of higher education in Virginia set forth by the Commission on the University of the 21st Century to meet the anticipated demand for higher education by undergraduate students. In response to the recommendations of the Commission, JMU is undertaking significant planning efforts to develop innovative instructional strategies, facilities, and administrative structures to prepare students to make significant contributions in a variety of sophisticated scientific and technological settings.

Emphasis on the improvement of institutional programs will continue, as will attention to research and public service-particularly as those activities affect the teaching mission. In the interest of public service, James Madison University recognizes the growing educational needs of the adult population. The University expects to be comprehensive at the bachelor's and master's levels in all areas where it has traditionally shown strength with respect to contributing to the higher educational objectives of the Commonwealth.

Student Assessment

A comprehensive assessment program has been established at James Madison University to insure that its mission is carried out effectively. The Office of Student Assessment was formed to coordinate assessment activities in the divisions of both academic and student affairs, to provide expertise to faculty and student affairs staff by evaluating their programs, and to conduct institutional-wide studies of undergraduate programs. This program is a response to the institution's eighth goal statement concerning "accountability for the proper and wise use of resources." Several institutional studies have already been conducted at JMU concerning alumni, "high-risk" students who have special academic concerns, and general education. These studies not only respond to state assessment guidelines but also support JMU's goals.

Alumni Follow-Up

In the first assessment area, 98 percent of the past five year's responding alumni report being satisfied with their overall experience at JMU. About 93 percent also report satisfaction with their major program of study. About 93 percent of graduates of the past five years report either full-time or part-time employment, and almost half have continued their education. Over 80 percent of graduates report satisfaction with JMU's contribution toward writing and speaking effectively, understanding and applying mathematics in daily life, defining and solving problems, developing appreciation of the arts, creative thinking, making logical inferences based on assumptions, maintaining physical health, appreciating citizenship, applying scientific methods and principles, learning independently, cooperating with others, selecting personal goals, developing self-reliance, exercising initiative, developing persistence, developing leadership skills, and tolerating other points of view. The use of computers was designated as an area for improvement, and JMU is designing a computer-literacy program for skills in word processing, library searches, basic computing knowledge; the ethical use of computers and electronic communication; and computing applications in the majors. Another area the alumni survey targeted for improvement dealt with "awareness of different cultures and ideas." JMU recognized the need to further diversify its student body and will establish international living-learning centers on campus and additional study abroad programs in the Pacific Rim.

High-Risk Students

The academic performance of "high-risk" students at James Madison University has been studied in three phases. First, probabilities of success at JMU have been determined based on high-school class rank and Scholastic Aptitude Verbal and Mathematics Test scores. Although our black student retention rate is good, special attention is being devoted to black students and determining their chances for success at JMU. Second, a locally designed test by the mathematics faculty predicted mathematics grades to a greater extent than an alternative nationally standardized test. Third, an extensive questionnaire was given to freshmen who did not perform according to their abilities. The questionnaire probed their study habits, problem-solving abilities, and personal backgrounds.

General Education

In the third area of assessment, general education, JMU is beginning the process of designing its own measures of liberal studies knowledge. Also as part of its general-education assessment program, JMU is studying a variety of cognitive and affective changes associated with the undergraduate experience. Five aspects of development under study are identity, intellectual development, the psychological tasks of the maturing process, moral development, and critical thinking.

Identity, one's sense of self, was assessed through three components—confidence, sexual identity, and conceptions about body and appearance. In general, students' conceptions about body and appearance, sexual identity, and confidence were relatively consistent from freshman to sophomore year. This overall pattern of development is not surprising, as the literature suggests that identity is more likely to increase during the upperclass years. When the data were analyzed independently for males and females, some differences emerged. While male identity scores dropped on all three components, female confidence scores increased from freshman to sophomore year. Hence it appears that JMU may be promoting the development of identity to a greater extent for females than for males, at least during the first two years of the undergraduate experience.

Intellectual development was assessed through an instrument patterned after Perry's scheme of intellectual development, which has stages or components—dualism, relativism, commitment, and empathy. Developmentally, as students progress in time they are expected to move from a dualistic to a more empathetic way of thinking. The results from this analysis suggested that they do so.

Five components of students' maturation in completing critical tasks from freshman to sophomore years were assessed: establishing and clarifying purposes, developing mature interpersonal relationships, academic autonomy, intimacy, and salubrious lifestyle. Overall, the five components maintained relative consistency from freshman to sophomore years, with a slight decrease evidenced on establishing and clarifying purposes (males showed a greater decrease than females). An overall increase on the intimacy scale was noted, with females showing a slightly greater increase on this component than males.

Overall, JMU students showed a gain in moral development from freshman to sophomore years, particularly females. Critical thinking scores also increased from freshman to sophomore years, with males and females showing similar gains.

Major

Assessment activities are currently underway in approximately two-thirds of the major programs. The remaining 25 undergraduate programs will begin assessment within the coming two years. Each participating academic program delineated specific educational objectives, selected or designed methods to measure the extent to which students met the objectives, and monitored progress through the annual assessment of its graduating seniors. Described briefly below are the accomplishments in the major programs to date.

Accounting

Assessment for accounting majors was based on four instruments: a standardized national achievement test, a student rating form, an essay rating form, and an interview rating form. Results suggested that most department objectives are being met, especially in accounting foundations, accounting methods and skills, professional ethics, and communication skills. Future work will concern the validity of the internally constructed instruments and whether program changes are warranted.

Anthropology

All graduating seniors in anthropology were administered a locally designed achievement test to measure competency in anthropological subdisciplines, including theory, history, and social organizational concepts. A comprehensive course review is currently underway.

Biology

The goals of the department of biology centered around "providing graduates with subject matter competence...within the context of a liberal arts education." An informal survey of biology department heads in the state indicated there was substantial agreement with JMU's specific choice of objectives. A standardized objective test was used to measure some of the more concrete objectives; it indicated that JMU's students did better than the national norm. Surveys sent to alumni and seniors indicated a good deal of overall satisfaction with the department. Specifically, more than four-fifths or more of the biology alumni reported they received an adequate or better education at JMU.

Dance

The strategy for assessing students in the undergraduate dance program had three components: dance history, dance technique and dance criticism. The primary purpose within dance history is to compile, by a student's final semester, the number of times the student participated in group performances, solo performances, choreographic presentations, technical experiences, and teaching experiences. The first semester of each year, every dance major is to be screened for technical competence and proficiency in at least two of the following dance forms: modern, ballet, jazz, or folk. Based on rating scales designed last year, course placement and structure has been changed in the following three ways: first, in modern dance classes, the students are required to stay at a beginning or intermediate level longer, whenever necessary, regardless of class rank. Second, in jazz dance, over 30 percent of this year's intermediate level class had the capability of taking an advanced-level jazz class, thus initiating discussions about the addition of advanced jazz. Finally, in ballet, assessment revealed that often advanced students are kept in an intermediate class based on class rank rather than ability. The dance critique papers this year are more thorough and address the important issues of dance in a more effective way than in previous years.

Economics

Graduates of the economics department performed at average levels on a standardized national test. Performances on an in-house essay examination seemed to be better in 1988 than in 1987 but were still weaker than ideal. Recent changes in the curriculum include the addition of an econometrics requirement, which was partially inspired by a survey of economics alumni. More detailed analysis and curriculum revision are planned.

Finance

Besides the alumni survey, assessment efforts in finance were as follows: an internally generated multiple-choice test, instruments to examine skills and personal characteristics, self-reporting to assess experience not readily measured by the first two instruments, and an interview of Chartered Financial Analysts scholars. Concurrent with the assessment process, the required coursework for the finance major has undergone a major restructuring. For example, starting next spring, an additional capstone course that includes overall program assessment will be added to the curriculum. In addition, discussions are underway about incorporating skills of judgment, analysis, and organization into the curriculum.

Foreign Language

Assessment for foreign languages consisted of establishing a level of proficiency via extensive review of research and consultation with colleagues, selection of national standardized tests for each language, and, where no acceptable test was available, creation of rating scales for proficiency. The objectives and assessment procedures for each language were submitted to three peer reviewers and modified according to comments and suggestions made. Modifications already made as a result of the assessment process include increasing the number of hours required for degrees in the French and Spanish majors. In addition, over the last two years, four new courses in Spanish and two in French have been added to the curriculum. Also adopted was a twelve-hour area-studies option that foreign language majors could select as a substitute for the second language requirement.

Geography

The geography faculty designed a testing sequence including a 50-question subject-matter test, ratings by each faculty member on each senior, an alumni survey, and outside peer consultation. In addition, the individual presentations of students will be evaluated in a senior seminar beginning in the 1989-90 school year. Overall, students performed somewhat lower than expected on the 50-item test. However, this first-year assessment measure needs some refinement, as indicated through test-item analyses. The alumni, on the other hand, offered praise beyond what the department expected. Alumni did suggest that writing and computer skills needed to be incorporated to a greater extent into the curriculum.

Geology

The geology program developed curriculum objectives centered around existing courses within the program and cognate courses. ETS's Major Field Achievement Test in geology was chosen to measure academic proficiency. At the present time, results are not available. Alumni and peer review were generally favorable about the geology program at JMU. Geology alumni were particularly satisfied with the quality of instruction and level of challenge in the geology curriculum. Major criticisms concerned lack of computer training and inadequate development of effective communication skills.

Health Science

The objectives articulated by the health-science program were assessed using a national standardized test, evaluation of field work or student teaching, and an alumni survey. The cognitive objectives were reported as being met by all but a few students. The need to assess these students earlier to provide advising assistance is recognized. The health science alumni's responses were positive, but they had concerns regarding computer literacy and career orientation. In addition, some alumni felt that more course work in needs assessment and evaluation of health-education programs would be helpful. Recommendations to address these and other concerns have already been formulated for the next school year.

History

A number of assessment methods were used to evaluate how well the history department was meeting its objectives. A senior examination was given, which included a multiple choice test and an essay. Seniors were also required to submit research papers for analysis of writing ability, research methods, and proficiency in computing. Exit interviews were also conducted with each senior, and evaluation data from internships, employers, and graduate schools were examined concerning the academic preparation of history majors. Overall, the results of the interviews and data from outside sources were very positive. On the cognitive tests, however, some students performed lower than expected. Based on these results, the department is making curriculum changes to insure the maintenance of rigorous academic standards.

Hotel and Restaurant Management

An in-house exam for graduating seniors in hotel and restaurant management yielded mixed results. Scores were acceptable but not as high as expected. The reliability of the test indicated that further refinement of the instrument is necessary. Students were also required to act as consultants to a hotel and submit a written report which was evaluated by faculty for problem solving and written communication skills. Oral communication was evaluated within course work. In general, communication skills were better than organizational and analytical skills, and curriculum recommendations were made to address this point.

Mathematics

Results from assessment of mathematics seniors who took a nationally standardized test were mixed. Performance was good for the first two semesters of calculus and abstract algebra but less than expected for the third semester of calculus and abstract algebra. In a survey, mathematics alumni expressed overall satisfaction with how they were prepared for their present occupations. Several curriculum changes which were contemplated earlier are now supported with assessment data.

Marketing

Assessment for the marketing program focused on conceptual knowledge, problem-solving skills, and communication skills by means of written work and case presentations. The results are modestly better than those of previous years, especially in regard to analytical and writing skills. Speaking skills, while adequate in case presentations, were generally unsatisfactory for most students. Overall, the faculty is remaining committed to continuing its efforts to improve the analytical and communication skills of students. In addition, progress is being made in integrating computer technology into course work.

Nursing

Information from assessment in nursing thus far has yielded the following data. Graduates have always performed quite successfully on the National Council Licensure Examination for Registered Nurses. 1989 senior nursing students scored higher than test and college norms in "latent trait" and "principled reasoning." JMU nursing alumni reported being very well prepared in critical thinking, professional behaviors, ethics, communication skills, the nursing process, cultural awareness, positive health behavior, group process and clinical competency. However, nursing graduates report deficiencies in computer literacy.

Philosophy and Religion

In addition to turning in two term papers for the assessment of their writing and research skills, the philosophy and religion students took a comprehensive set of tests, including the Cornell Critical Thinking Test and locally designed tests, in the core curricula of philosophy and religion and in upper-division philosophy or religion. Given the student numbers, the philosophy and religion department needs several years of assessing students before conclusions about the department can be made. Nevertheless, the results of the assessment suggest the need to explore this fall ways of enhancing students' critical-thinking and writing skills. The department might consider the possibility of a senior seminar, part of whose purpose would be to review core material.

Physical Education

The department of physical education used the following assessment tools: departmental knowledge tests for each of the three undergraduate programs, senior essays, an advisor's checksheet, the Watson-Glaser Critical Thinking Appraisal, and the Student Developmental Task and Lifestyle Inventory. Almost all of the students continue to score above the established levels. Course content continues to be reviewed in an effort to improve assessed weaknesses. An advisor's checksheet has been distributed to all academic advisors. Faculty members have been encouraged to attend JMU workshops on critical thinking and creative teaching.

Physics

Assessment in physics has contributed to curriculum changes in the content areas, technical writing, and oral communication. Evaluation instruments have included the GRE subject test, a locally designed achievement test, a free-format problems test, and a senior conference examination. By examining students' responses to individual questions, weaknesses in the students' understanding of thermodynamics and modern physics were noted. Plans to address these areas have already been made by the faculty.

Public Administration

The public administration assessment involved the use of an internally created instrument and an alumni survey. A number of strengths were revealed. For example, students scored higher than expected on the total assessment exam, and the alumni were overwhelmingly positive in their perceptions of JMU, their major, and their academic preparation. They did, however, suggest the need for additional emphasis on computers and information systems. Methods for addressing these concerns are currently under consideration.

Library Media Services

The school library media services program was evaluated using performance measures in the students' clinical experiences. In addition, the program's philosophies, goals, objectives, competencies, and assessment tools were reviewed by professionals in every similar program in the state. Other evaluation procedures, a senior essay and an instrument to measure competency in cataloging, have been developed but due to time constraints were not utilized this year. The results showed relative weakness in four areas: (1) using computers, (2) applying the scientific method, (3) applying mathematics in daily life, and (4) maintaining physical health. As a result, the school Library Media Services Program plans to

incorporate more actual computer use into the undergraduate program. In addition, the program may need to emphasize more scientific research and methodology.

Social Work

Assessment of social-work objectives was conducted by the analysis of student position papers for content, style, and mechanics. The results suggest that the students' papers were average to above average in all areas. An oral exam to evaluate understanding and ability in social-work practice and understanding of one's professional self yielded similar results. In general, the data have given greater clarity and consensus among the faculty in the areas of program objectives and educational outcomes. A multiple-choice exam is also being developed to improve the comprehensiveness of the assessment process.

Special Education

Assessment of the special-education objectives was conducted using pre-existing measures, including NTE and the BTAP. In the final analysis, the program seems to be producing very good special educators. Specifically, student teachers invariably received high ratings by supervisors, and all students evaluated scored above the state minimums on the General and Professional Knowledge areas of the NTE. Several strengths and weaknesses have been identified, and efforts are currently being made to give more instruction in mainstreaming, consultation skills, and computer literacy.

Speech Pathology

Based upon the results of the 1987-88 assessment, speech pathology and audiology modified its departmentally constructed multiple-choice test of technical knowledge, its video-taped clinical evaluation, and its writing assignment. Eighty-five percent of the faculty reported changes in their courses based upon feedback from last year's senior assessment.

Sociology

Continuing aspects of assessment in sociology included the rating of senior-seminar projects, using the scale designed from the program goals and objectives statement and the ETS Field Test in sociology. Exit interviews were conducted with graduating seniors. As a result of assessing students during the first two years, major curriculum changes have been made, including the requirement of a senior seminar and three theoretically and methodologically integrated core courses.

Theatre

The senior project courses in the theatre major required the submission of a formal paper for evaluation. More preparation in writing will be added to the curriculum in the future. In addition, informal and formal dialogue in class and evaluation of productions has been added to the technical end of the theatre program.

Assessment in Student Affairs

A parallel program of student assessment was launched in 1989 within the Division of Student Affairs. Recognizing that a part of the undergraduate experience is gained through the affective development of its students, programs to enhance that development will be studied through assessment in the Office of Residence Halls, Student Activities, Admissions, Minority Support Services, and Career Planning and Placement. A program to assess the extracurricular environment is also being piloted at JMU. Realizing that students grow and develop in their participation in out-of-class activities with faculty and student affairs professionals, JMU is studying the impact of various areas in which students are involved. These areas range from clubs and organizations to plays and lectures to community-service activities. Moreover, students' degree of involvement in these activities (such as leadership positions held) is being studied in relation to how they mature and change while at JMU.

JMU is committed to student learning and development at the undergraduate level and is designing assessment programs to ensure that its goals are met. This comprehensive approach to program evaluation is lengthy and complex, but it will ensure continued improvement of programs and services.

James Madison University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	10,959	10,437	10,145	9,953	9,855
Fall Enrollment	11,207	10,906	10,519	10,381	10,342	10,016
First-Time Freshmen Enrolled	1,923	2,034	1,957	1,897	1,769	1,626
First-Time Transfers Enrolled	546	559	562	621	606	566
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	2,029	1,922	1,932	1,872	1,772
Master's Degrees Awarded	—	214	229	190	222	278
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 11,207	
Male	43.3%
Female	56.7%
In-State	79.2%
Out-of-State	20.8%
Full-Time	85.7%
Part-Time	14.3%
On-Campus	95.6%
Off-Campus	4.4%
Black	8.5%
White	87.9%
Other Races	3.6%
21 and Under	71.5%
Over 21	28.5%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*	
Business and Management	564
Social Sciences	205
Education	204
Computer and Information Sciences	202
Communications	174
Psychology	102
Visual and Performing Arts	72

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)	
Social Sciences	19.3%
Business and Management	13.1%
Letters (English, Literature)	12.3%
Education	9.1%
Fine and Applied Arts	7.8%
Psychology	6.4%
Computer and Information Sciences	5.8%
Physical Sciences	5.2%
Mathematics	5.1%
Foreign Languages	3.6%
Biological Sciences	3.4%
Communications	3.0%

1989 First-Time Freshmen Admissions	
Applied	12,061
Accepted	4,332
Enrolled	1,923
Acceptance Rate	35.9%
Enrollment Rate	44.4%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$461,480	$2,863,488	16.12
1986-87	$1,167,310	$4,652,522	25.09

All figures as of January 16, 1990

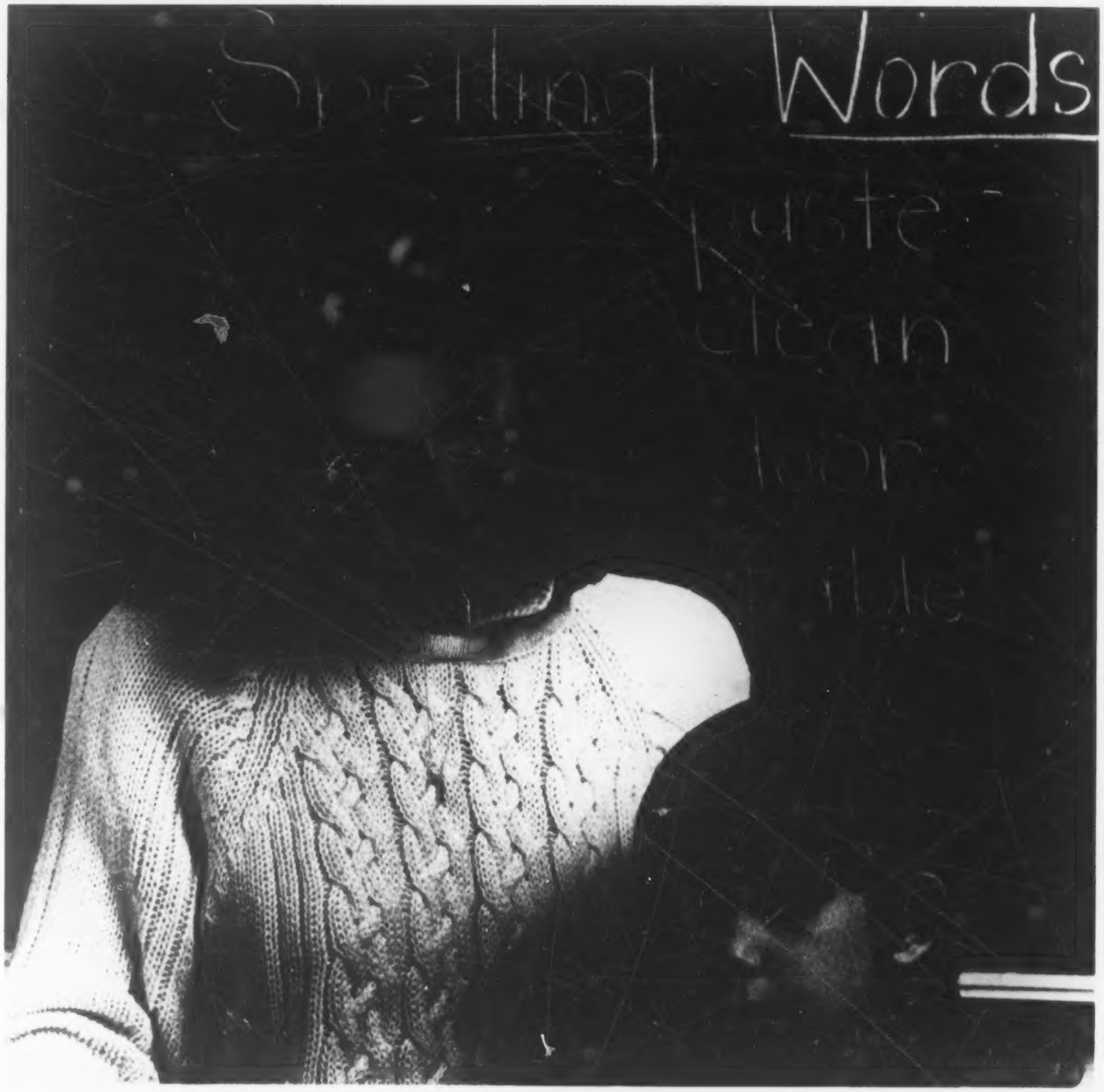
*On-Campus only

Longwood College

Longwood College originated from the Farmville Female Seminary Association, which was incorporated by the General Assembly in 1839. The College acquired its present name in 1949, after having been known as the State Female Normal School (1884-1914), the State Normal School for Women (1914-24), and the State Teachers College at Farmville (1924-49). Until 1949, Longwood was primarily a teacher-education institution for women. Concurrent with its last name change, Longwood began a diversification of program opportunities that has led to its current status as a comprehensive college for men and women with academic programs available at the bachelor's and master's levels.

Today, Longwood College is a state-supported, coeducational, comprehensive college located in a rural setting. In Fall 1989, it had an off- and on-campus enrollment of more than 3,100 students. In addition, the College has approximately 3,500 non-credit enrollments and more than 1,200 summer term enrollments for credit. Of the students enrolled in the fall semester, about 93 percent were in-state and 80 percent were residential. The distribution of students by sex is 68 percent female, and by race, nine percent minority.

Approximately 24 percent of the students graduating from Longwood earn certification to teach. The remaining students are enrolled in other primary programmatic areas of liberal arts, business administration, social work, therapeutic recreation, and pre-professional studies. The College is organized aca-



demically into three schools and 16 departments. At the master's level, the College offers advanced work in education (Master of Science) and English (Master of Arts), and a new five-year program that results in a bachelor's degree in psychology and a master's in special education. There are six undergraduate degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Fine Arts, Bachelor of Music, and Bachelor of General Studies. There are 80 majors, minors, and concentrations at the bachelor's level.

In addition to its self-contained programs, Longwood has developed a number of cooperative programs with other in-and out-of-state institutions. In most cases Longwood is not the degree-granting institution but prepares the student for specialized study at the cooperating institution. A cooperative program with nearby Hampden-Sydney College allows students from either college to take classes at the other. Longwood cooperates with many public and private institutions and agencies within the state to provide intern opportunities for students in education, business administration, government, social work, and therapeutic recreation.

In recent years, Longwood has substantially revised its transfer policy to attract students from two-year colleges and to simplify the transfer process. Since the Spring of 1986, any student who has earned an Associate in Arts and Sciences degree (AAS&S)[*] in the Virginia Community College System and whose associate's degree represents a university parallel curriculum, is considered to have satisfied Longwood's General Education requirements.

In addition, Longwood has entered into direct articulation agreements with Southside Virginia Community College, Danville Community College, Central Virginia Community College, and Thomas Nelson Community College to provide benefits to students earning a university parallel degree. Those students will automatically be accepted at Longwood as juniors and can generally expect to graduate in two years.

Similiar policies and agreements are in effect with Richard Bland College and apply to holders of any of the three associate degrees from Richard Bland.

Purpose of the Institution

The primary educational objective of Longwood College is to provide a curriculum distinguished by academic excellence. The College believes that this goal is best achieved by a close interrelationship between teaching excellence and scholarly activities. As an institution of higher education, the College is further dedicated to serving the citizens of Southside Virginia by providing enriched educational and cultural opportunities to the area.

The primary areas within the Commonwealth from which the institution attracts students are Richmond, Northern Virginia, Southside Virginia and Virginia Beach. Outside the state, students come primarily from New York, Maryland, New Jersey, Connecticut and Pennsylvania. Students from several foreign countries also attend Longwood.

For non-traditional students, Longwood has instituted a new program leading to the Bachelor of General Studies degree. The program allows an adult student, working with a faculty adviser, to formulate an individualized course of study to meet his or her own needs and interests. In the fall of 1990, Longwood will begin offering all of the requirements for the Bachelor of Science in Business Administration in evening classes.

The Continuing Education Center of Longwood College, located in South Boston, provides opportunities for persons pursuing associate through master's degrees, and also offers literacy programs, career planning, financial aid services, and seminars for business and industry. Among the CEC's programs are courses from Southside Virginia and Danville Community Colleges, four-year non-traditional degree programs from Averett and Mary Baldwin Colleges, and graduate degree programs from the University of Virginia, Virginia Tech, Old Dominion University, and Longwood. An estimated 300 students are enrolled in Longwood courses at the CEC and in other off-campus locations in adjoining counties.

Longwood is Virginia's only medium-size, primarily residential, graduate-level comprehensive college located in a rural setting. Its central location in the state and its affiliation with a small town provide students with an opportunity to share in a unique educational experience. The proximity of three larger cities also provides opportunities for social and cultural life for the student body.

Extent of the Institution's Mix of Instruction, Research and Public Service

The primary goal of Longwood College is to provide its students with instruction of high quality. The College also recognizes that quality instruction and professional activity are closely related. Therefore, the College encourages its faculty to participate in professional research. Last year Longwood allocated approximately $750,000 to research and sponsored programs.

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[*] In practice this policy has applied also to holders of the AA or AS degrees from the VCCS

The College serves Southside Virginia through continuing education programs; special workshops and other offerings to meet specific needs of teachers; hundreds of public performances, lectures, and exhibits; community service by faculty and students; and the use of certain athletic facilities for recreation.

In addition, Longwood assists in the economic development of Virginia through a literacy network and through the Small Business Development Center, headquartered in Farmville with satellite offices in South Boston and Danville. This center is recognized as a national model for rural areas.

Longwood cooperates with Lynchburg College and Southside Community Hospital to provide a degree program in nursing for area residents. Students take the first part of the program at Longwood, then take nursing courses taught by Lynchburg College faculty at the hospital. The B. S. degree in nursing is awarded by Lynchburg College.

Longwood's nationally honored *Virginia Writing* project produces a twice-a-year journal of the best writings, art, and photography from Virginia high schools. More than 70 high schools use the journals as a supplementary text.

The Institution's Future Directions

Longwood will continue to be a "comprehensive" institution that offers selected masters' programs and a broad range of liberal arts and professional programs at the baccalaureate level. However, greater emphasis will be placed on responding to the growing needs of the state and region for non-traditional educational opportunities and on increasing the availability, breadth, and quality of master's degree programs. The College will seek a more diverse student body, balancing gender representation and attracting a larger number of minority, transfer, graduate, and international students.

Longwood expects a modest rate of enrollment growth, with an overall FTE enrollment target of 3,500 by 1994-95. The College will work to gradually raise its admission standards, increase access opportunities for minority students, and improve the student retention rate.

A major goal of the institution is to enlarge and strengthen the present international studies program on campus and to expand study-abroad opportunities and international exchanges of students and faculty.

In the public service arena, Longwood will increase collaboration with pre-collegiate institutions through new and existing programs, such as the Longwood Superintendents' Network, the Pre-College Program, and *Virginia Writing*; support and expand the activities of the Longwood Small Business Development Center; continue development of a Fine Arts Center to serve the cultural needs of the region and state; continue to provide library services in the community and region; and improve opportunities for area children with exceptional learning conditions through the Longwood Developmental Center.

Student Assessment

From the beginning of the assessment planning process, Longwood College has been committed to the use of student outcomes information for effective institutional planning. Since 1982 the student affairs staff has been collecting data on significant developmental characteristics of students in an attempt to better understand their attitudes, values, and aspirations. This database will prove invaluable as the College refines its assessment program and develops longitudinal studies of student culture.

Longwood is committed to a broad involvement of students in the college experience. This commitment is expressed in the 14 student goals that formed the basis of the assessment plan in 1986. These goals reflect Longwood's concern for the intellectual, social, personal, and career development of its students. This holistic view of students requires a multi-dimensional array of assessment devices — not just a one-dimensional assessment of knowledge — but the resulting portrait is more compelling. As the College finds out more about its students, it will be better able to improve programs and refine its goals to serve students.

The assessment process has also helped clarify the purpose and goals of the general-education program, resulting in a revision of the general-education curriculum in 1987-88. In the same year, all academic disciplines collected assessment information. Most disciplines without one are moving to create a senior seminar which can serve as part of an integrated assessment process.

Longwood was thus well prepared for academic planning in 1988-1989 under its new president, William F. Dorrill. The formal strategic planning process undertaken in 1988-89 led to the identification of specific objectives that will guide the development of the College.

General Education

In 1987-88 the faculty of Longwood College initiated a dialogue on the goals of general education. A significant impetus for this dialogue was the need to assess the impact of Longwood's general-education program on its students. The outcome of this discussion was a revision of the program. The faculty reached consensus on ten goals (content areas) and nine criteria (skills) that cut across these content areas. They are in the process of developing courses to meet these goals and criteria and of developing a curriculum-embedded assessment plan for this new program.

Until this new program is in effect, the College will use standardized tests to assess the existing general-education program. During 1987-88 the ETS Academic Profile test was used. The results of the three-hour academic profile showed Longwood students at the 55th percentile or above in the content areas of humanities and social sciences and in the skills of reading, writing and using mathematical data. The students scored below the 50th percentile only in natural sciences and critical thinking. While the test results showed relative areas of strength, the testing sample was too small to allow reliable generalizations to be made.

One of the things Longwood learned from this initial assessment was that for assessment to be meaningful and useful, it must be embedded in coursework. Standardized tests are not perceived by students as a meaningful part of their educational experience (and hence they do not participate willingly), and standardized tests do not provide information that can be easily used to improve specific courses. Therefore, efforts to develop a curriculum-embedded assessment program for our new general-education curriculum will continue.

Assessment of Majors

Each academic department has been encouraged to develop its own approach to assessment. This has resulted in diverse processes. All academic departments began their initial assessment processes during the 1987-88 academic year.

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While many departments have chosen to use standardized tests, they have been very cautious in the use of these tests and have spent time reviewing them. For those departments that will continue using standardized tests, the College will provide assistance in standardized testing procedures and in the interpretation of results.

Several departments have included either an experiential component or a portfolio as part of their process. These components have proven to be very valuable, but it is difficult to quantify the results. To help overcome this problem, during the fall semester the Assessment Steering Committee will provide direct feedback to each department relative to that department's annual assessment report. Included in this feedback will be recommendations for changes in the departmental assessment process.

Education

The Education Department has chosen to use both the Beginning Teacher Assistance Program (BTAP) results and the NTE Core Battery and Specialty test to measure performance of the Elementary Education and Special Education majors. During the 1987-88 year 97 percent of the majors passed the core battery of the NTE. Ninety-eight percent of the majors passed the specialty test. The Beginning Teacher Assistance Program results show that 54 out of 55 majors passed. As a result of the data gathered from the follow-up survey of student opinion about the program, the following changes have been made: additional information about the NTE and BTAP is now included in junior year courses, the tests and measurements module has been modified to include teacher-made tests, and a course in classroom management and exceptional children has been included in the professional semester.

Psychology

The assessment program included a departmentally-developed comprehensive test, the ETS Major Field Achievement Test, and exit interviews for seniors. Students performed at or above the national average on the ETS test. On the departmental test, scores had not changed significantly over the last three years but were twice as high as the scores of the first-semester freshmen. In their exit interviews, students indicated they were pleased with the instruction and the faculty's concern for students.

Business

The department continued to use the ETS Undergraduate Business Assessment Test for the fourth year of its assessment program. This year, 19 students who had taken the test as freshmen were retested as seniors. The results show that students performed significantly better on the test after completing their program. During the last four years, 80 percent or more of all Longwood students have scored either within or above the average range. However, there was a drop in student performance on this test when compared with the three previous years. Faculty in this area have recommended incorporating this test in existing senior courses and providing more information to students regarding the benefits of assessment for program quality so that students will more fully participate in it.

Mathematics

Senior mathematics majors scored slightly, but not significantly, below the national mean on the Major Field Achievement Test. The department has already made two prerequisite changes in their courses as a result of these assessment data. The department will also develop their own comprehensive test to supplement or replace the Major Field Achievement Test and will develop a senior seminar course in which to embed their assessment instruments.

Art

The Department of Art has developed highly appropriate assessment techniques for art students, such as an artist-of-the-month competition, juried exhibits with external review, and portfolio reviews. The department will also develop a written examination to be given to freshmen and seniors to track their progress. The department has developed two new courses as a result of these assessment data to address areas of weakness and has added more field trips to regional museums to enrich their students.

Social Work

The faculty in this area assess 126 competencies that are incorporated in their courses. Findings indicate that over 95 percent of the majors can identify and perform the 126 skills and that they also can identify through behavioral references exact incidents of their having performed such skills. Assessment data are used to determine the contributions of individual courses to the development of these competencies in students, as well as to measure student outcomes. Juniors and seniors are given an oral evaluation by the program staff at which time the assessment results are discussed with the students and further learning needs are identified.

Sociology and Anthropology

Sociology majors were given the Major Field Achievement Test and anthropology majors were given a departmentally developed comprehensive test. For the 1987-88 academic year only 24 percent of these majors took these tests; the faculty do not feel this sample is a large enough one from which to draw reliable conclusions. However, for the 1988-89 academic year (for which test results are not yet available) 70 percent of these majors took these tests, indicating that the department has made progress in raising the level of student participation. A questionnaire was also used to assess the senior majors' perceptions of the strengths and weaknesses of the department. As a result of this survey, the department has made several changes in its curricula. The department will require that students use the statistical package SPSS in the course on research methods and will place additional emphasis on contemporary sociological theory. The department also plans to use portfolio analysis in their assessment program and will need to determine how these portfolios will be judged.

Assessment of Remedial Programs

During the 1987-88 academic year Longwood offered developmental courses in mathematics and writing to 154 (19.4 percent) of the entering freshmen. The three-semester retention rate for these developmental students was 70.8 percent. This retention rate compares favorably with Longwood's first-year retention rate (for the 1987 entering class) of 76 percent and even more favorably with the first-year retention rate for four-year public colleges of 70.5 percent. This comparison indicates that the developmental students are acquiring the skills they need for college-level course work.

In developmental writing, a Test of Standard Written English (TSWE) score of 350 or below was used as the placement criterion, and a score of 350 or above was used as the exit criterion from developmental English. Pilot research using holistically scored essays in combination with TSWE scores was conducted to address inaccuracies in placement encountered in previous years. As a result of this research, the placement procedures were altered for the 1988-89 year. All students with TSWE scores 400 or below were given a holistically scored essay. A composite score from these two instruments determined placement. While developmental students made significant gains on the TSWE, they did not in the essays.

In developmental mathematics, students with a 420 or below on the quantitative portion of the SAT were required to take the Descriptive Test of Mathematics Skills: Arithmetic. The criterion for placement in developmental mathematics was a score of 25 or below. The success rates of developmental mathematics students in introductory-level courses from 1983 to 1987 were examined and compared with students placed directly into introductory mathematics courses. This analysis indicated a lower success rate for developmental students. In response to these findings the developmental curriculum was extended to include more algebra. Additionally, an algebra skills test was added to the placement testing.

During the 1987-1988 year, pilot curriculum and placement procedures were developed for a developmental reading course. This course was implemented on a pilot basis during the 1988-89 year.

Alumni Assessment

The College completed the design of the alumni survey during the 1987-88 year. This form will be used annually to survey students who graduated three years and five years prior to the date of the survey, beginning during the 1988-89 academic year.

Student Development

Assessment of the student development program at Longwood has three goals: 1) to measure student development along four dimensions—intellectual, social, career, and personal; 2) to measure students' involvement in learning; and 3) to measure students' attitudes about the college environment. Assessment is viewed both as a means to guide future program planning and a way to provide students with individual information about their development, with the intent of encouraging them to set goals for involvement.

In the fall of 1987, Longwood administered three assessment instruments designed to elicit information about students' psychosocial, cognitive, and vocational development. The first instrument was the Student Developmental Task and Lifestyle Inventory (SDTLI), which measures three of the psychosocial developmental tasks most salient to college students: establishing and clarifying purpose, developing mature interpersonal relationships, and developing autonomy. The second was the Learning Environment Preferences (LEP), which measures cognitive development according to the Perry scheme of intellectual and ethical development. Finally, they were given the Career Decision Scale (CDS), which measures the level of certainty and indecision students feel about their career choices. Approximately one third of the freshmen completed each instrument, once during August orientation and again in the spring.

Results from the Student Developmental Task and Lifestyle Inventory show that significant development occurred in the following area: clarifying purpose

(educational involvement, lifestyle planning, life management, cultural participation) and salubrious lifestyle. Areas that did not show much change were mature interpersonal relationships (peer relations, tolerance, emotional autonomy), intimacy, and academic autonomy. There was some regression in the career-planning sub-component of clarifying purpose. The SDTLI points out differences between men and women; women score higher than men on many parts of the SDTLI.

On the Learning Environment Preferences instrument, Longwood freshmen scored slightly, but not significantly, below national norms for first-year students and showed only minimal overall group change over their freshman year. Based on these data, Longwood freshmen, much like their peers nationally, can be described as recognizing and preferring modes of learning that emphasize opinions, discussions, and variety in the learning environment. These students, again like their peers overall, are still grounded in the right/wrong thinking and a view of learning as purely information exchange, but they are clearly capable of beginning to understand more complex forms of reasoning and judgment.

The data from the Career Decision Scale, a brief measure designed primarily for career counseling, indicated that although the total sample was very similar to national norms in terms of both certainty with respect to career choice and general career indecision, male freshmen reflected more certainty and less indecision than did the female freshmen. The subsample of men was small compared to the women, however, and the results are in any case ambiguous: the men could be either more certain or less realistic than the women.

A fourth instrument, the College Student Experiences Questionnaire (CSEQ), was administered primarily to freshmen in the spring of 1988. The CSEQ measures attitudes toward, and level of involvement in, the college environment. The overall quality of effort scales indicate that our students expend greater-than-average effort in the interpersonal/social and scholarly/intellectual areas. Longwood students perceive themselves to be less successful in making progress in the following areas: personal/social, science/technology, general education, literature, the arts, intellectual skills, and vocational preparation.

Assessment results will help the College educate its students about the meaning of a student assessment program and what it can mean for their success, involvement, and potential performance. In order to enhance student motivation, the College will provide students with assessment results on an individual basis in order that they can understand more about their involvement in college and have an opportunity to make some new and responsible decisions about their academic and social activity. The needs, interests, and concerns of the male student population require further study as the environment becomes more challenging and supportive of their development. A big task will be to study the nature of the student and campus culture, with an eye toward understanding, shaping, and improving the educational emphasis inherent in the environment, as well as student perceptions of it.

Longwood College - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	3,195	3,165	2,940	2,881	2,880
Fall Enrollment	3,142	3,042	3,126	2,884	2,784	2,713
First-Time Freshmen Enrolled	692	700	757	766	757	756
First-Time Transfers Enrolled	251	180	177	163	147	184
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	553	449	437	410	443
Master's Degrees Awarded	—	33	30	17	37	32
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 3,142

Male	31.6%
Female	68.4%
In-State	93.1%
Out-of-State	6.9%
Full-Time	90.2%
Part-Time	9.8%
On-Campus	99.9%
Off-Campus	0.1%
Black	7.0%
White	90.9%
Other Races	2.1%
21 and Under	76.4%
Over 21	23.6%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	140
Education	98
Social Sciences	47
Life Sciences	22
Public Affairs	20
Physical Sciences	20
Psychology	20

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Business and Management	17.4%
Social Sciences	15.1%
Education	14.9%
Letters (English, Literature)	12.7%
Fine and Applied Arts	9.1%
Mathematics	7.3%
Physical Sciences	5.5%
Biological Sciences	5.2%
Psychology	4.7%
Public Affairs and Services	2.9%
Foreign Languages	2.6%

1989 First-Time Freshmen Admissions

Applied	3,135
Accepted	1,850
Enrolled	692
Acceptance Rate	59.0%
Enrollment Rate	37.4%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$1,300	$2,863,488	0.05
1986-87	$13,187	$4,652,522	0.28

All figures as of January 16, 1990

*On-Campus only

Mary Washington College

Mary Washington College was founded in 1908 as the State Normal and Industrial School for Women in Fredericksburg. It was renamed Mary Washington College in 1938, after having undergone a transformation from a teachers' college to a public liberal-arts college for women. Then in 1944, Mary Washington became affiliated with the University of Virginia as its women's undergraduate arts and sciences division. In 1970 the entire university became coeducational and in 1972, by action of the General Assembly of Virginia, the College became an independent, state-supported institution for women and men, with its own governing board.

The College is primarily an undergraduate institution, with the large majority of its students living on campus. Through an emphasis on quality, Mary Washington attracts students from all areas of Virginia, particularly the urban areas of northern Virginia, Richmond and Tidewater. Approximately 25 percent of its dormitory students are from other states and foreign countries, with the largest proportion coming from southern, middle Atlantic, and New England states. Located in the middle of a rapidly growing Washington-Richmond "urban corridor," Mary Washington serves the educational needs of both full-time and part-time commuting clientele, in part through the use of its resources in the evenings and on weekends. Its limited graduate offerings are designed in particular for part-time, commuting students, as is the Bachelor of Liberal Studies adult degree program.

The College is organized into academic departments of one or more disciplines and offers more than 30 undergraduate programs in the liberal arts and sciences and compatible professional fields leading to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Liberal Studies. It also offers an interdisciplinary graduate degree, the Master of Arts in Liberal Studies, and brings selected graduate programs in the professions to Fredericksburg from Virginia's major research universities.

To fulfill the needs and interests of citizens in the region through the most effective use of existing resources, Mary Washington works in close cooperation with its neighboring state-supported institutions in planning and implementing new higher educational opportunities.

Purpose of the Institution

Mary Washington has historically focused on the liberal arts and sciences, with the pursuit of academic excellence as the core of a value system emphasized throughout the College. This commitment to excellence and liberal learning will continue in the years ahead.

Believing that a broad liberal education based upon freedom of inquiry, personal responsibility, and intellectual integrity is the best preparation for citizenship and career, the College requires its undergraduates to pursue studies in the arts, the humanities, and the sciences as a necessary supplement to their concentration in a particular field.

In keeping with the principles of liberal education, the College places high value upon cultural diversity and global awareness. It seeks in its curricular offerings to reflect that diversity and to promote that awareness.

As a small, predominantly residential undergraduate institution of the liberal arts and sciences, Mary Washington is distinctive within the Virginia system of higher education by providing a small college alternative to qualified students.

Mary Washington is sensitive to the educational needs of the citizens within its commuting region and has established undergraduate and graduate degree programs designed especially for adult part-time students. The College will continue to assess its full-time and part-time offerings and, when needed, propose curriculum changes to fulfill its continuing educational commitment to the population within the area.

Extent of the Institution's Mix of Instruction, Research and Public Service

Providing instruction of the highest quality is the College's most pervasive and important function. The goal of that instruction is to offer students learning opportunities that will provide them with a sound general education, sensitize them to their responsibility as citizens in the broader community, offer them the means to achieve the highest possible degree of self-realization, and enable them to develop the skills and abilities necessary for life-long learning and productive and creative lives.

The College encourages individual and departmental research necessary to support the teaching processes and the undergraduate and graduate academic programs of the institution.

Mary Washington's public and community service activities, offered on and off campus, provide citizens with continuing educational opportunities and assist in meeting special community needs. For example the Center for Historic Preservation, designed to support the undergraduate degree program in historic preservation and to provide specialized services to preservation organizations and interested individuals, is unique within Virginia and the region.

The Institution's Future Directions

In the decade of the '90s, as the College evaluates its offerings, it will build upon its high-quality liberal arts and sciences programs and propose curricular additions and adjustments specifically designed to meet new and increased demands. Mary Washington College will continue to emphasize residential undergraduate liberal education and will also offer, within the liberal arts context, a limited number of compatible undergraduate and master's-level programs designed primarily for commuting students. As the focal point for the development of these programs for commuting students, the College has created a special division called the Center for Graduate and Continuing Education.

Student Assessment

The College achieved all of the major assessment goals that had been set for the 1988-89 academic year. In accordance with the assessment plan submitted to State Council in 1987 and revised in 1988, the following activities were completed during the 1988-89 academic year:

(1) In general education, the collection and scoring of writing samples from entering freshmen and graduating seniors to assess the impact of the College's writing requirement on students' writing abilities.

(2) Among major programs, collection and evaluation of assessment data from four academic departments. Six other departments submitted their plans for collecting assessment data during the 1989-90 academic year. In all, fourteen of twenty-one academic departments were engaged in some form of assessment activity.

(3) A comprehensive alumni survey.

(4) Two surveys of current students' perceptions of college programs and services.

General Education

Methods—The general-education component selected for evaluation during academic year 1988-89 was the College's writing requirement, which stipulates that each student must complete at least one course designated as "writing intensive" during each academic year of attendance. Because this requirement spans the entire four years of enrollment, the College Outcomes Assessment Committee concluded that appropriate groups for cross-sectional comparison would be entering freshmen and graduating seniors. Longitudinal data will then be obtained by retesting this year's freshmen during the spring semester of their senior year.

From the outset of discussions about assessment strategies, the faculty have maintained that Mary Washington's general-education outcomes can best be evaluated by means of internally designed measures. The faculty group who assumed responsibility for designing the writing assessment test was the Writing Intensive Committee, which oversees the writing program and approves courses that will satisfy this requirement. During May and June 1988, this design group constructed a writing assessment protocol consisting of two parts: (1) a brief survey of student attitudes and self-perceptions about their writing abilities and (2) an essay test composed of four different topics from which each student could select one. Students were given up to three hours to complete this essay. The writing assessment was administered to all entering freshmen during their orientation period in August 1988. The same test was administered to all graduating seniors in April 1989.

Results—Of a total of 1231 essays (716 freshmen and 515 seniors), a random sample of 831 essays (67 percent of the total) were scored holistically. The writing scores of freshmen and seniors were compared, and analysis of their scores indicated that there was a statistically significant overall difference between seniors and freshmen on three of the four topics. In addition to the measured differences in writing performance, comparisons between freshman and senior responses to the writing questionnaire indicated that the seniors had substantially more confidence in their writing abilities. Taken together, the performance and perception findings provide evidence that the objectives of the writing intensive requirement are being accomplished.

Use of Assessment Findings—Primary responsibility for using these results belongs to the Writing Intensive Committee. Notwithstanding the positive results reported above, several issues should be addressed. The broadest question is whether holistic scoring of an essay specimen is the most appropriate method for evaluating our students' writing abilities. Holistic scoring was designed primarily as a technique for assessing individual students' writing abilities for placement purposes rather than for program evaluation. A single global score does not yield the type of detailed feedback that lends itself to specific program improvements. As a result, the Writing Intensive Committee is being asked to undertake two additional tasks: (1) to clarify the objectives of the writing program and (2) to use these objectives as criteria for rescoring a selected specimen of the 1988-89 student essays.

The writing assessment group also discovered the importance of having the same group of faculty responsible for both designing an assessment test and establishing the criteria for scoring it. This lesson will be applied to the design and scoring of the two general education areas designated for assessment in 1989-90. Finally, the faculty members who participated in the holistic essay scoring sessions came to realize the importance of establishing and communicating clearly to students the criteria they will employ in grading students' writing. This realization, if clearly conveyed to their colleagues in other writing intensive courses, may prove to be one of the most durable benefits of the writing assessment.

Major Programs

In the 1987 assessment plan, four major programs were designated for collection of assessment data during the 1988-89 academic year: studio arts, economics, education, and historic preservation. Each of the academic departments responsible for these major programs collected data from their declared majors during the spring 1989 semester. Although the results are reported here, detailed departmental uses of these results are not expected until the resumption of normal department business during the fall 1989 semester.

Studio Arts

The studio arts faculty devised an assessment framework consisting of three general criteria, as well as specific criteria within each of four areas: ceramics, drawing and painting, printmaking, and sculpture. The three general criteria were generation of ideas, comprehension of principles, and craft or technique. These criteria were used to evaluate and compare a portfolio of works submitted by each studio arts major during the junior year and each student's senior exhibition. In addition, all graduating seniors completed an exit essay in which they evaluated the impact of the studio arts program on their overall artistic and intellectual development. These data for the nine May 1989 graduating seniors were reviewed jointly by the four full-time studio arts faculty.

After assessing the students' junior and senior art works and their evaluative statements, studio arts faculty concluded that the two core courses, Two-Dimensional and Three-Dimensional Design, should be taken as early as possible. Because these courses also satisfy general education requirements, they are heavily subscribed to by non-majors. Consequently, a system was devised for reserving places for prospective studio arts majors in the 1989 entering freshman class. Two other courses, Drawing and Color Theory, although not required for all majors, also played a critical role in advancing students' comprehension and technique. Finally, both faculty and students identified a need for additional equipment, coursework, and staffing in the area of communications design, including computer graphics and graphic design.

Economics

The department devised a hybrid assessment system consisting of both standardized and internally designed measures. The multiple-choice, standardized test, the Test of Understanding of College Economics (TUCE), is a measure of students' understanding of theoretical concepts and how those concepts can be applied to analyze problems. The TUCE test was administered to over 400 students at the beginning and end of the two-semester introductory sequence in economics and to graduating senior economics majors. The test of student quantitative abilities in economics was designed by the department, and it consisted of two essay questions. Its purpose is to assess mastery of the methodology of empirical analysis as well as some of the most widely-used quantitative techniques. The test was administered to students at the beginning of the first quantitative methods course and again at the end of the second quantitative methods course. Although both of these courses are required, students can take them at any time (although only in sequence). Consequently, not all students taking the course are seniors. Eighteen students took the quantitative methods sequence last year.

Results from the theory test indicated that students at the end of the two-semester introductory sequence performed better than students at the beginning, and senior economics majors performed better than students at the end of the two-semester sequence. Students at the end of the two-semester sequence did not perform better than the national comparison group. The department is currently undergoing an intensive review of the test results and the contents and teaching methods of these courses. Although there is no national comparison group for the senior majors, their performance was not satisfactory to the department.

In the area of quantitative methods, students at the end of the two courses displayed greater mastery of quantitative skills than students at the beginning. However, the absolute level of mastery did not meet the department's expectations, and it is reviewing the whole issue at the present time. The department is also considering the possibility of testing other areas within the discipline.

Education

Although the College does not offer a major in education, the department does provide a full range of courses for students seeking to meet teacher certification requirements. The department uses a variety of assessment measures: performance in student teaching, performance on the National Teacher Examination (NTE), and the Beginning Teachers Assistance Program (BTAP), as well as periodic surveys of alumni who are practicing teachers. The performance of Mary Washington students on standardized measures has been consistently at or above the level of other comparable institutions, including both the core battery and specialty area examinations of the NTE and the BTAP. NTE scores are appropriate for determining minimal levels of competence. Test results reflect favorably on the educational courses providing the knowledge tested. MWC students are very strong in all areas except in Art, Mathematics and Spanish. Weaknesses in Mathematics and Spanish reflect deficiencies in a small number of students rather than in the major program. Through advising, the department will alert mathematics and foreign language students that NTE area tests are quite rigorous and that they require review and preparation.

In regard to BTAP results, the department met its goal to be on par with its Virginia cohort group for the individual 14 competencies. On further analysis of the BTAP results, it was gratifying that 100 percent of the beginning teachers passed Competency 9, "meaningfulness," which is much emphasized in our program. Similarly, 100 percent passed Competency 10, "planning." The two areas in which passing scores were lowest were "consistent rules" and "close supervision." Even though the cohort group showed similar results in these two areas, the department intends to place greater emphasis on them without diminishing its emphasis on higher-level teaching competencies. Of the 75 practicing educators who responded to the most recent alumni survey (see below), the percentage who reported that the College had prepared them "very well" or "adequately" for their current job was substantially higher than national norms.

In the course of reviewing its assessment strategies, the department also identified a need for improving the data-tracking system for teacher certification students. A new centralized system will be implemented during 1989-90, which will entail identification of all teacher-certification students at the time they declare their major. The revised system will permit tracking of all teacher certification students, using the College's centralized computer database, both during and after their college experience.

Historic Preservation

The assessment strategy for historic preservation majors has two main components: first, the completion of a National Register of Historic Places registration form for a site, structure, historic building, historic district or object and the pursuit of that nomination through its review by the historic preservation faculty, the Virginia State Review Board, and the staff of the National Register of Historic Places of the National Register; and, second, the completion of an examination prepared by the Department of Historic Preservation for graduating seniors.

The preparation of a nomination to the National Register of Historic Places begins during the spring semester of the junior year, and for purposes of student and program assessment, culminates in consideration by the State Review Board. This task is performed in the context of three required upper-division courses. The completion of a National Register nomination is, like the undergraduate degree program in historic preservation, an interdisciplinary endeavor. It is a complicated task that requires advanced skills in historical research and historical writing, architectural research and architectural analysis, writing that is descriptive and analytical, and related skills in marshalling and presenting visual evidence. In short, the preparation of a National Register nomination provides the faculty of the Department of Historic Preservation many opportunities to review the undergraduate program in historic preservation. For example, review of a group of nominations by the Historic Preservation faculty and the staff of the Virginia Department of Historic Resources might reveal architectural descriptions are awkward, or perhaps that the questions the nomination poses to determine the significance of a site, building or district do not comport well with current historical inquiry. If discovered, deficiencies in the first case can be addressed in the three lower-division courses in which architectural history and architectural descriptions are introduced to historic preservation students. In the second case, deficiencies would be addressed in other required courses, in which themes in American history, American historiography, and research methods are addressed. In sum, the preparation of a National Register nomination provides an opportunity for students in the major to measure themselves against a national set of standards and for the faculty to review the interdisciplinary content of the degree program.

During the 1988-89 academic year, all thirteen graduating seniors completed successful National Register nominations. In addition, thirty-two junior majors began the preparation of National Register nomination forms. The senior exit examination, consisting of 100 multiple-choice questions and one-hour essay, will be administered for the first time during the 1989-90 academic year.

Other Departments

In addition to the four departments that collected and reported assessment information, six other departments submitted proposals to the College Outcomes Assessment Committee. Four of these were approved as submitted, and two were referred back to the department for clarification or revision. Four departments (Biology, Computer Science, History, and Psychology) pilot-tested the new Major Field Achievement Test offered by ETS. Each department will evaluate the appropriateness of this instrument after score reports have been returned. The Mathematics department pilot-tested a short test of its own design using departmental objectives as scoring criteria and plans to continue enlarging and refining this instrument.

Alumni Survey

Methods—The Alumni Assessment Subcommittee comprised alumni affairs staff, current students, and alumni. This group decided to use a hybrid instrument consisting of the ACT Alumni Survey and a set of 26 supplemental questions designed by the committee. In March 1989 the combined questionnaire was mailed to 1,000 randomly selected alumni dating as far back as the Class of 1915. A total of 466 surveys (47 percent) were returned.

Results—Responses to the standardized portion of the survey were compared with national normative data representing 101 other colleges and universities. Most of the variances between MWC alumni and the national comparison sample were in a positive direction. Some of the greatest differences were reported in these areas: the contribution of the College to their abilities to write and to understand written information; understanding and appreciating the arts; understanding the interaction between humans and the environment; programs and publications offered by the alumni office; and the general belief that the quality of their education was better than that of other colleges. Areas in which MWC alumni responses were slightly lower than the comparison group included: leading/guiding others, understanding and applying science, and learning to speak effectively. Among the supplemental items, alumni made it clear that the low student-faculty ratio and the availability of faculty outside the classroom played a major role in their academic experience a the College. It is worth noting that many of these opinions are shared by current students in the surveys reported below.

Uses of Assessment Findings—Planned uses include a report of the survey results to all alumni who responded and a summary report in a forthcoming issue of the alumni magazine. The alumni office has also been given a copy of the full ACT survey report, which organizes the results by categories such as gender, year of graduation, college major, occupational area, etc. This information will be reviewed by the Alumni Assessment Subcommittee. Responses from different groups of majors will also be reported to the relevant academic departments, some of which will be sending out more detailed and program-specific surveys to their former majors.

Student Surveys

Methods—More than five hundred MWC students participated in one of two surveys administered during the Spring 1988 semester. The College Student Experiences Questionnaire (CSEQ) was administered for the third consecutive year and the Student Opinion Survey (SOS) for the first time. Both of these instruments are based on current students' subjective perceptions of the quality of their experience, rather than on their performance in relation to objective standards. Because both surveys have been administered to large national samples over several years, it is possible to make comparisons with other institutions. Copies of the full report of these findings were distributed to the Board of Visitors, President's cabinet, department chairs, and student leaders. A summary of the main findings was sent to all faculty members.

Results—In evaluating their academic experiences, students indicated their belief that the college cultivates the traditional humanities virtues of appreciation of literature and the arts, a critical understanding of value-related issues, and the ability to express oneself in writing. On the other hand, our students reported self-perceived deficiencies in skills associated with quantitative thinking: science, mathematics, and computers (other than as word processors). Consistent with the College's liberal-arts emphasis, vocational development was perceived by students as a

low institutional priority—a perception reinforced by students' underutilization of available career services.

In evaluating the College environment and services, MWC students indicated a high regard for the quality and maintenance of the campus buildings and grounds. Their interactions with other students have been rewarding, especially within the context of residence hall life and a variety of voluntary campus organizations and activities. Students were dissatisfied with the amount of available parking space on campus and with some aspects of student health services. They also expressed concern about the quality of weekend social activities on campus and the lack of racial diversity in the College community.

In evaluating College personnel, students place a high value on their relationships with individual faculty members, whom they perceive as accessible and attentive to their individual needs. Small average class size accentuates the opportunity for positive interactions with their instructors. Administrative staff, on the other hand, were generally viewed less favorably, particularly in the manner in which regulations affecting student residential life have been established and enforced.

Despite the areas of student discontent noted above, Mary Washington students are generally more satisfied than their counterparts at other institutions. Overall, MWC students believe that they are part of a campus community that is attractive, intellectually challenging, and conducive to their personal development.

Use of Assessment Findings—Our students' self-reported deficiencies in science and math played a role in the faculty's consideration of proposals to strengthen the general-education requirements in these two areas. Both proposals were approved by wide margins. Student feedback about specific offices and services led to several improvements, including a face-lift for the former pub on campus, increased on-campus parking space, increased autonomy for residence halls in handling disciplinary matters, and provision of late-night study areas in the campus center. The Career Services office has increased its outreach programming in the residence halls. In order to gain a more detailed understanding about perceptions of administrative services, a comprehensive survey was conducted during the spring 1989 semester. As with the results of the 1988 student surveys, these findings were widely distributed throughout the College community.

Concluding Remarks—Completion of the first full year of assessment data collection provides an opportunity to evaluate the College's developing assessment system in both general and specific ways. To gain an external perspective, arrangements were made for a reciprocal exchange with the Director of Student Assessment Programs at Radford University. Each assessment coordinator reviewed the assessment plans and documents from the other institution and then spent a day interviewing faculty and administrators on campus. The feedback from this external review, in combination with the reflections of the College Outcomes Assessment Committee members, leads to several conclusions.

Due mainly to the commitment and resourcefulness of a small but dedicated core of faculty, the College has launched several large-scale undertakings, most notably the writing assessment and the alumni survey. In order to sustain this momentum, however, it will be important to widen the circle of participation by students as well as additional faculty. The broadening of faculty participation will encourage new approaches and help reduce the burden assumed by Outcomes Assessment Committee members, the coordinator of the Writing Intensive Program, and other individuals who played key roles in 1988-89.

The continued use of multiple strategies, including both performance and perception measures and both current and former students, will enhance the richness and stability of the assessment findings. Faculty design groups for the Natural World and Abstract Thought areas of general education have completed the construction of new assessment instruments for administration in 1989-90. These internally-designed tools have been subjected to rigorous external review to ensure their validity. At the same time the ongoing process of departmental major assessment must be nurtured and the annual student surveys be conducted and reported to the campus community, as was the case in 1988-89. The results of these activities will be incorporated into long-term institutional planning and resource allocation, so that assessment will lead to institutional improvement.

Mary Washington College - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	3,117	3,005	2,859	2,816	2,767
Fall Enrollment	3,533	3,427	3,352	3,225	3,183	3,048
First-Time Freshmen Enrolled	668	718	753	681	716	734
First-Time Transfers Enrolled	239	254	194	134	106	112
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	644	595	563	542	523
Master's Degrees Awarded	—	22	25	13	17	11
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989

Male	31.2%
Female	68.8%
In-State	82.6%
Out-of-State	17.4%
Full-Time	78.2%
Part-Time	21.8%
On-Campus	100.0%
Off-Campus	0%
Black	4.0%
White	92.5%
Other Races	3.5%
21 and Under	68.5%
Over 21	31.5%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Social Sciences	134
Business and Management	102
Liberal/General Studies	79
Psychology	40
Letters (English, Literature)	38
Life Sciences	32
Visual and Performing Arts	31

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	27.7%
Letters (English, Literature)	16.9%
Fine and Applied Arts	8.5%
Business and Management	7.6%
Foreign Languages	7.4%
Education	6.9%
Psychology	6.1%
Mathematics	5.3%
Physical Sciences	5.3%
Biological Sciences	4.6%
Computer and Information Sciences	2.4%

1989 First-Time Freshmen Admissions

Applied	4,752
Accepted	1,732
Enrolled	668
Acceptance Rate	36.4%
Enrollment Rate	38.6%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	0	$2,863,488	0
1986-87	$20,713	$4,652,522	0.45

All figures as of January 16, 1990

*On Campus only

Norfolk State University

In response to a growing demand for higher education in the Hampton Roads region, Virginia Union University established a Norfolk unit in 1935. Following a rapid expansion of this unit's responsibilities, Virginia Union University relinquished control in 1942 to the newly-chartered Norfolk Polytechnic College. The Commonwealth's interest in the fledgling school began in 1944 when the General Assembly adopted legislation merging it with what was then the Commonwealth's single traditionally black state-supported institution, Virginia State College. Nurtured by this new partnership, the two-year division of Virginia State flourished for more than two decades, expanding enrollment and curricula. It received permission to offer the bachelor's degree in 1956. A gift of fifty acres of land from the City of Norfolk gave the Norfolk Division of Virginia State College adequate space to accommodate its burgeoning enrollment and diverse academic programs.

The Virginia General Assembly established an autonomously operated Norfolk State College in 1969. In recognition of the college's broadening mission, Norfolk State became a university in 1979.

Norfolk State University is a coeducational urban institution offering courses of study in the liberal arts and sciences, technology, nursing, and other fields leading to professional degrees at the associate, bachelor's, and master's levels. Enrollment at the University is approximately 8,300. Virginia residents comprise 68 percent of that number. Nearly 55 percent of the students are residents of Hampton Roads, while the remaining 45 percent come from elsewhere in Virginia, the United States, and 34 foreign countries and territories. The student body ratio of men to women is approximately 2 to 3.

The University offers a broad range of academic disciplines, including business, education, social work, mass communications, and the natural and physical sciences, which have strong student appeal. The academic programs are offered through nine schools and 32 departments.

At the bachelor's level, program emphases lie in the sciences, allied health professions, urban planning, business, technology and education. At the master's level, the institution continues to develop its human resources program, including urban affairs, gerontology, social work, communication, special education, community psychology, fine arts and music. Future plans call for proposing further development of programs in these fields.

In order to enhance access to upper-level degree programs, Norfolk State University has entered into extensive, formal student transfer agreements with more than a dozen community colleges in Hampton Roads and beyond. Transfer agreements also have been developed with Old Dominion University, Virginia Polytechnic Institute and State University, and Christopher Newport College. The most extensive credit exchange arrangement exists with Old Dominion University, featuring an innovative program of inter-campus registration and matriculation. Moreover, the University is a partner in a doctoral program in clinical psychology with the Eastern Virginia Medical School of the Medical College of Hampton Roads, the College of William and Mary and Old Dominion University.

Purpose of the Institution

Through the years, Norfolk State University has enlarged its historical purpose of extending services to black Virginians to encompass all citizens in the larger community. The University will continue to identify, encourage and cultivate the non-traditional student seeking development of his or her full academic potential.

The University strives to maintain high academic standards while developing alternative models for higher education. The University stands as a manifestation of the educational truism that quality students are attracted to excellent programs. Of the 8,000 students who submitted applications for the fall semester, 6,500 were accepted. These figures reflect a record number of applications and admissions in the institution's history. Two-thousand, eight hundred and forty-eight (2,848) students were enrolled.

The University offers programs unique to Virginia. The ROTC unit is the largest of any non-military school in Virginia. Additionally, the University is a partner in the tripartite Hampton Roads Naval ROTC program with Hampton University and Old Dominion University.

The Dozoretz National Institute for Minorities in Applied Science is a program established by Norfolk State University to provide the best possible education in the sciences for highly qualified and motivated students. The objective of the Institute is to address the severe shortage of minority scientists by producing graduates who are capable of entering and successfully completing graduate studies in the fields of biology, chemistry, computer science, electronics engineering, mathematics, and physics.

Although the University's primary service area is the Hampton Roads region, its mission extends throughout the Commonwealth and the nation. Numerous courses and special programs are made available through the activities of the School of General and Continuing Education. Offering a wide selection of education programs, the school serves individuals and organizations in need of supplemental course work on a credit or audit basis. A highly flexible curriculum accommodates the schedules of working professionals.

Extent of the Institution's Mix of Instruction, Research and Public Service

Consistent with its mission, Norfolk State University places a high priority on classroom instruction, offering in-service training opportunities and convening national conferences on teaching dynamics and teacher training. While instruction will continue to receive ample attention, faculty research is no less an important endeavor. The research activity is expected to expand with a growing emphasis on graduate education. With some 71 academic programs available (seven associate, 48 baccalaureate, and 16 master's degree curricula) a diversity of state-funded and sponsored research in biomedicine, social and political behavior, mathematics, atomic energy, environmental sciences, and family studies is currently under way. The institution's total sponsored program income is $4.2 million.

Public service has always been central to the mission and philosophy of the University. The public service thrust is embraced by all academic and administrative areas and manifested through numerous special and ongoing activities. Some examples include the University's special laboratory programs for elementary, secondary and adult students whose basic skills competencies need stregthening. Instructional activities are provided in the areas of reading, language arts, computer science, mathematics and speech. The University maintains formal relationships with area public school systems which regularly refer their advanced high school students to the institution for more intense study. Elementary and secondary classes make frequent field trips to campus to study astronomy in the University's planetarium. Moreover, special children's reading programs, sports activities, and child diagnostic clinics are available to local residents throughout the year. After diagnosing a child as gifted, the University offers a special laboratory to stimulate the child's interest. This facility is staffed by professionals and students in the University's master's program for gifted education.

A number of Norfolk State's outreach and continuing education programs are brought together in the Brambleton Multipurpose Center. In a contract with the city of Norfolk, the University has assumed the operation of the Center and is administering several programs that are beneficial to the citizens of the surrounding area. Notable among these are a teenage anti-pregnancy program, social service assistance programs, a gerontology program, and community recreational programs.

The Institution's Future Directions

As the third largest historically black university in America, Norfolk State University has progressed dramatically since its beginnings in 1935. Its direction in the coming years will be characterized by growth in undergraduate and graduate programs and in its assessment efforts. The primary goal of Norfolk State University will be to graduate well-rounded citizens who perform successfully in the marketplace, deal effectively with a technologically advanced society, and contribute positively to their communities.

Norfolk State University will continue to distinguish itself as a leader in equal access for all citizens. As a multicultural university, the population of non-black and international students will increase. Through social-science research, the University will be a major institution in the Commonwealth and in the nation that researches the problems of contemporary society, thereby contributing significantly to many bodies of knowledge. In this regard, all graduates will be required to take courses which will help them to recognize, understand, and appreciate cultural difference in America and abroad.

To alleviate the shortage of black teachers, Norfolk State University will assume a prominent role in resolving this educational dilemma. In this regard, it will continue to be a key higher education resource within the Commonwealth and the nation, thereby continuing its commitment to provide significant numbers of quality teachers and to enhancing the skills of all educators through its many graduate programs.

The establishment of the ODU-NSU Graduate Center will provide many educational opportunities for graduate education and continuing education. Conveniently located in Virginia Beach, this modern facility will afford Norfolk State University the collaborative opportunity to address the educational needs of a growing urban multicultural society.

As the move for accountability in higher education continues, NSU will endeavor to plan and implement comprehensive assessment efforts to include the establishment of assessment satellite centers to expedite the administration of evaluation instruments; to establish assessment reinforcement centers to enable students and faculty to evaluate academic achievement with minimum disruption and inconvenience; to continue to phase in all of the academic majors; and to make curricular changes as necessary to meet the demands of the approaching 21st century.

Student Assessment

Norfolk State University has developed its formal assessment plan to be consistent with its unique mission. The emphasis on institutional effectiveness has necessitated that assessment activities be regarded as essential to the viability of this institution with a rich historical significance to the Commonwealth and to the nation.

Cognizant of the roles of accountability, evaluation, and the improvement in the assessment process, the University has endeavored to focus on the significance of each of these roles as the process has evolved. The faculty, administrators and staff of Norfolk State University know that assessment focuses on the means by which an institution can make improvements and changes where necessary. Many accomplishments can be identified.

Assessment procedures have been reviewed and implemented to measure outcomes of the remedial program and in the majors, to determine alumni satisfaction, to review the general education core, and to develop other plans to include all other aspects of academic endeavor.

The design of the alumni survey, an institutional effectiveness project, involved the administration of nine survey questionnaires which were administered to seven of the University's schools: Education, Technology, Health-Related Professional and Natural Sciences, Arts and Letters, Business, Social Sciences, and Social Work. This assessment project included a survey of current students, of former students who attended Norfolk State University (NSU) but did not complete a degree, and of graduates.

All questionnaires, except those completed by current students, were administered by mail to a systematic sample of potential respondents. Continuing student questionnaires were administered to a sample of classes chosen to be representative of the wider student population. In the case of alumni, all graduates over the past five years were surveyed on a school-by-school basis. For former students, a random cross-sectional sample of non-returning students for a particular term was selected.

Each questionnaire contained an identical section describing the demographic characteristics of respondents. Examining these characteristics provided both the opportunity to determine the degree to which the responses obtained were representative of the wider study population and additional insight into important characteristics of the NSU student body that are not available through regularly collected statistics.

The ultimate test of instructional effectiveness for an institution with a primarily professional focus, of course, is the success of graduates in obtaining employment and their perceptions of the manner in which the instructional program contributed to their current situation. To explore these areas, a common set of questions was administered to all alumni, and distinct sets of questions were developed for administration to the graduates of each of the seven schools. Because teacher education cuts across all schools, another set of items addressed the concerns of teacher preparation.

Excerpts of the results of the study indicate that approximately 90 percent of respondents to the alumni survey indicated that they were employed, over 75 percent of the survey respondents were employed in positions related to their major area of study, and 35 percent of the respondents are pursuing further education.

In the largest sense, NSU provides an important opportunity for its students, who reported positive experiences and exceptional pride in their academic, social and cultural growth. Approximately two-thirds of the respondents report that the University was helpful in attaining goals in important areas. Academic goals are rated high in importance, but personal development goals are listed higher in importance by most NSU respondent groups. NSU respondents feel strongly that such things as building self-confidence, gaining skills to enrich daily life, and becoming independent and adaptable are important outcomes of a college experience.

While these studies did not directly investigate patterns of persistence, a set of items administered only to former students did probe these respondents' reasons for leaving NSU. Almost a quarter of respondents reported that they had achieved their academic goals and were, therefore, not leaving dissatisfied with the instruction provided at NSU.

Respondents are distinctive in their feeling that attending an historically Black institution is important. Two-thirds to three-quarter of all three study populations thought that the experience of attending such an institution was important to them.

NSU is fulfilling an important access function for students whose family background is non-collegiate. Because this function is consistent with the University's mission, its fulfillment is an important ingredient of institutional effectiveness.

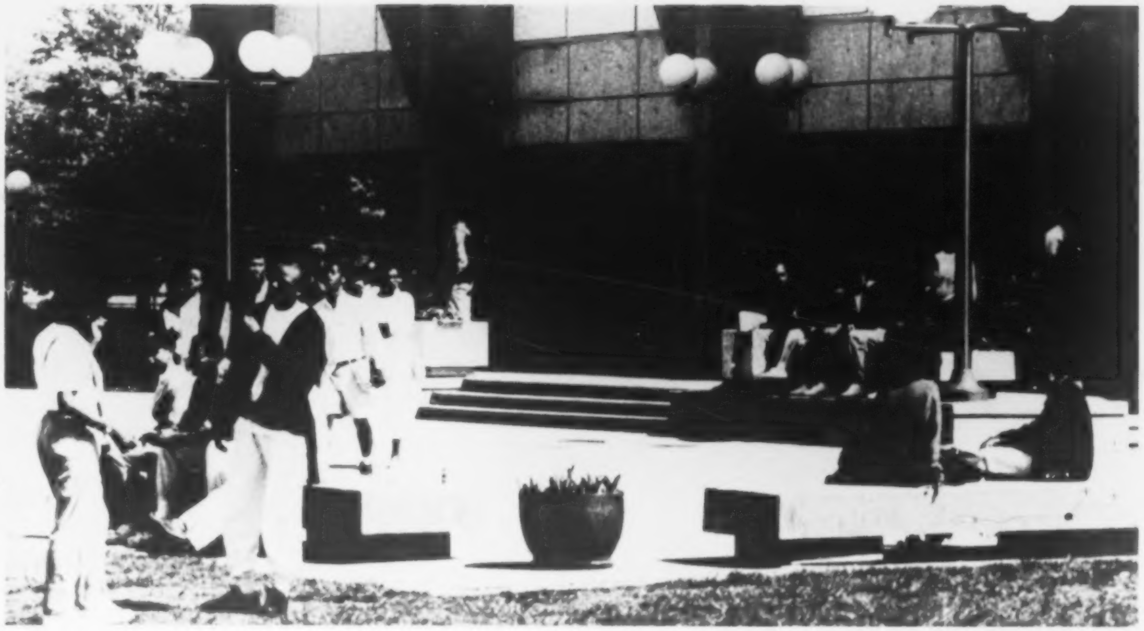
These results are being used to promote discussion among faculty, students, and administrators in the areas in which performance may be improved. Because of the relatively low proportion of students reporting that NSU was helpful in teaching them to use computers, for example, a course in computer literacy has been added to the general education core. The pattern across schools could lead some to consider strengthening their curricula or services in specific areas, for instance quantitative methods in Arts and Letters and Social Work. Some student services also need to be reviewed, for instance registration and financial aid. In the meantime, staffing has been increased and a new computer filing system is being purchased.

Because of NSU's mission, the identification and assessment of "at-risk" students is one of the challenges that the University has accepted in the implementation of its plan. We have indicated those variables that provide the identification of these students, e.g., high school G.P.A., placement tests, and others.

NSU has reviewed and developed strategies to enhance the delivery of academic and student services for this population of students requiring intervention for academic success. Plans are being considered to establish a comprehensive freshman year program. Longitudinal studies will be administered to this population to determine their short-term and long-term success after remediation.

Academic reinforcement is provided for students who need assistance in mathematics, reading, and writing. These modern laboratories are equipped with technological advances and tutorial assistance to enhance students' potential for academic success while they are removing deficiencies in their basic skills.

NSU has completed the first phase and has begun the second phase of its five-year phase-in of assess-



ment in the major programs. Realizing that results may indicate the need for curricular changes and program revisions, academic departments that have completed outcomes assessment are continuing to review and analyze the data to determine the changes and reforms that are necessary to maintain quality program offerings for their students.

Three departments—Fine Arts, Music, and Nursing—have conducted outcomes assessment during the first phase using a multiplicity of assessment measures to determine student achievement. Their procedures and methodology reflect the variety of assessments appropriate to measure the skills taught in these disciplines.

Two departments in the School of Arts and Letters, Fine Arts and Music, used approaches that are appropriate to their fields of study. The Fine Arts Department used these instruments to conduct their assessment: an entry-level portfolio of student art; a drawing examination; a standardized instrument, the Torrence Test of Creativity; a discipline-specific vocabulary examination; an exhibition of student work for a juried evaluation; and a group project. The department employs a variety of measures to reflect the breadth of the art curriculum to include exposure to art, skills development in establishing a portfolio, and many opportunities to collaborate and exhibit works. (Students passed their examinations with superior and average ratings.)

The Music Department also employed a variety of instruments to determine students' abilities not only at the completion of courses, but also upon entry. The outcomes measures included written and aural theory examinations, proficiency with the student's instrument, applied music juries, auditions, senior recitals, demonstration tapes, portfolios, and internships. The department has developed an alumni survey which it plans to administer to graduates of the department within the last ten years.

By the senior year students have achieved and exceeded the performance and theory levels established upon entry. While the department is proud of the progress and success its students have demonstrated, the assessment has enabled the department to identify areas that it needs to strengthen. In that regard, the department has reviewed the listening portions of the examinations, and it has resolved to intensify these aural experiences for all music students.

The assessment plan in the Nursing Department consisted of four components of student learning. The outcomes assessment was designed for both groups—the associate degree and the baccalaureate degree programs.

The associate degree graduates must pass the national licensing examination in order to practice as registered nurses. This examination of necessity meets stringent criteria for validity and reliability, since students are measured against national standards, and measures beginning level safe practice of nursing. The graduates of the associate degree programs have achieved the national percentage rate for passing the NCLEX (National Council Licensing Examination).

The department employs a systematic plan for evaluation of students and the curriculum, with plans to survey alumni. It will continue to review comprehensive examinations for the associate degree program. It will also review clinical evaluation measures for clinical nursing courses so that they will become competency based. NCLEX results will be used to make curricular revisions by content analysis, program review, and instructional methods.

NSU continues to assess in the majors. With a five-year phase-in plan, evaluation and program improvements will be continuous. Other aspects of the collegiate experience will be assessed also as the effort proceeds.

Because one of the institution's goals is to provide a comprehensive liberal-arts education, the faculty is reviewing the general-education core of courses. This review will provide the faculty in the academic departments the opportunity to determine the necessary curricular revisions and means of assessing outcomes in the general education core.

The goals of the University's plan are to carefully review, analyze, and, where necessary, improve all academic offerings for students who matriculate here. NSU provides the administrative support that is essential for an effective assessment plan by providing numerous opportunities for faculty development, being realistic and sensitive to the need for curricular changes, yet maintaining its proud heritage as a viable institution with a unique mission.

Norfolk State University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	7,291	6,907	6,667	6,597	6,718
Fall Enrollment	8,288	8,123	7,721	7,458	7,186	7,233
First-Time Freshmen Enrolled	1,657	1,899	1,808	1,507	1,521	1,464
First-Time Transfers Enrolled	408	491	451	427	382	440
Associate's Degrees Awarded		57	33	24	35	50
Bachelor's Degrees Awarded		527	470	484	580	487
Master's Degrees Awarded		110	120	119	116	119
Doctor's Degrees Awarded		0	0	0	0	0
First Professional Degrees Awarded		0	0	0	0	0

*FTE = Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 8,288

Male	36.3%
Female	63.7%
In-State	68.5%
Out-of-State	31.5%
Full-Time	77.4%
Part-Time	22.6%
On-Campus	96.2%
Off-Campus	3.8%
Black	83.3%
White	14.1%
Other Races	2.6%
21 and Under	52.0%
Over 21	48.0%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	98
Education	81
Communications	55
Engineering & Related Tech.	54
Social Sciences	49
Health Sciences	27
Public Affairs	21

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Letters (English, Literature)	16.2%
Education	15.2%
Social Sciences	12.7%
Mathematics	10.9%
Business and Management	8.6%
Physical Sciences	5.4%
Biological Sciences	5.3%
Psychology	4.0%
Engineering	3.7%
Computer and Information Sciences	3.3%
Public Affairs and Services	2.8%
Communications	2.6%

1989 First-Time Freshmen Admissions

Applied	3,439
Accepted	3,427
Enrolled	1,657
Acceptance Rate	99.7%
Enrollment Rate	48.4%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$258,805	$2,865,488	9.04
1986-87	$753,840	$4,652,522	16.20

All figures as of January 16, 1990

*On Campus only

Old Dominion University

Founded in tradition yet building toward the future, Old Dominion University had its formal beginning in 1930. It started as the Norfolk Division of the College of William and Mary, although William and Mary had offered extension courses in Norfolk as early as 1919. Virginia Polytechnic Institute began offering an engineering program under a cooperative agreement with the Norfolk Division in 1931. The Norfolk Division was authorized to offer baccalaureate programs in 1954. In 1962, the General Assembly made the Norfolk Division independent of the College of William and Mary. Shortly thereafter the new Board of Visitors adopted the name of Old Dominion College. In September 1969, the College became Old Dominion University.

Today the University has a total student enrollment of 16,239 with nearly an equal number of male and female students. Approximately 65 percent are full-time students, and about 81 percent are Virginia residents.

The colleges of Arts and Letters, Business and Public Administration, Education, Engineering and Technology, Health Sciences, and Sciences provide students with a wide array of undergraduate degree programs and course options. Over 50 master's degree programs are offered in the arts, humanities, social sciences, business, natural and physical sciences, economics, education, engineering, computer science, public administration, urban studies, mathematics, statistics and the allied health professions. Two certificates of advanced study are offered in

education. Doctoral programs are offered in sixteen areas including biomedical sciences, engineering, business administration, computational and applied mathematics, computer science, oceanography, applied physics, geology, clinical psychology, industrial organizational psychology and urban services with emphases in urban management, urban education, and health services. Additional doctoral programs in nursing and international studies are under development.

Cooperative programs have been established with Norfolk State University, the Medical College of Hampton Roads, the College of William and Mary, Tidewater Community College, and Hampton University to take advantage of the educational resources in the region. The University established the Peninsula Graduate Engineering Center in Hampton and the Virginia Beach Graduate Center in collaboration with Norfolk State University in order to provide advanced educational and research services to the region.

A comprehensive set of student services support and extend the learning environment beyond the classroom. These services are designed to respond effectively to student needs; provide outlets for leisure and recreational interests; and support students in need of counseling, advising, academic skill development, and career planning and placement.

Purpose of the Institution

Old Dominion University is located in the heart of Hampton Roads, one of the world's major seaports. Now a complex of seven major cities, Hampton Roads is a microcosm of the opportunities and challenges of contemporary urban America. It is also a major center for research and development and a

home for extensive scientific and technological activities in marine science, aerospace engineering, ship design and construction, advanced electronics, and nuclear physics.

The University takes its unique character from Hampton Roads as it provides leadership to the state and nation in teaching, research, and service. Thus the University has a special mission for the Commonwealth in commerce and in international affairs and cultures. It has a significant commitment in science, engineering and technology, especially in fields of major importance to the region. As a metropolitan institution, the University places particular emphasis upon urban issues, including education and health care, and upon fine and performing arts.

Every Old Dominion University undergraduate student follows a general education program that is designed to develop the intellectual skills of critical thinking and problem solving and to encompass the breadth of understanding needed for personal growth and achievement and for responsible citizenship. This general education program places special emphasis upon appreciation of the arts and upon understanding the perspectives of women, minorities, and non-Western cultures. Each undergraduate chooses a major program in the liberal arts or sciences or in a technological or professional field.

Old Dominion University's graduate offerings are focused on society's need for advanced professional education and on specialized programs at the master's and doctoral levels for which the institution is prepared through unusual strength of faculty or special geographic advantages.

As one of America's major ports, Hampton Roads is the locus of national and international military commands and the home of a culturally diverse population. The University therefore has natural strengths in activities having international outreach. Faculty members in such fields as business, economics, international studies, geography and the sciences design curricula, teach courses, and encourage foreign exchanges that enhance the University's role as an international institution.

The Hampton Roads scientific environment provides special opportunities for science and engineering faculty to emphasize research and graduate programs in such fields as marine science, aerospace engineering, and advanced electronics. Global ocean studies and cooperative research at NASA receive particular attention, as University researchers collaborate with U.S. and foreign engineers and scientists.

Urban issues are addressed by programs in public administration, education, the social sciences, and the health professions. The richness of Hampton Roads' artistic life gives great vitality to the University's programs in the visual arts, music, theatre, and dance.

Because of its commitment to Hampton Roads and its emphasis on creative innovation, Old Dominion University offers life-long learning opportunities through credit and non-credit courses and brings educational services and programs to the people of Hampton Roads at several off-campus locations. The University has developed an extensive program in telecommunications instruction and teleconferencing. It participates in the statewide graduate television network and offers instruction through television to students located on the Eastern Shore, the Peninsula, and at other sites in the Commonwealth.

The University seeks in its student body a diversity of age, gender, ethnic, religious, social, and national backgrounds. It actively recruits American minority students along with students from other countries worldwide in such numbers as to have their presence make a discernible impact upon the University's educational processes. Old Dominion recognizes its mandate to serve both the academically gifted and those who have the potential for academic success despite educational, social, or economic disadvantages.

Extent of the Institution's Mix of Instruction, Research and Public Service

Old Dominion University is committed to providing quality instruction to all students. Teaching excellence is encouraged through faculty development programs and recognition of superior instruction.

The discovery of new knowledge through research and creative endeavor is a central function of the University, which values and supports faculty participation in the discovery, synthesis, application and creation of new knowledge and art forms.

The University encourages the involvement of its faculty and staff in public service. The enrichment of the lives of students and residents of Hampton Roads is fostered through University sponsored cultural activities, fine and performing arts events, and intercollegiate athletics. In addition, through applied research, consulting, and other activities, the University plays a prominent role in the development of local business and industry and serves as a resource to government agencies and both public and private educational institutions in the region.

The Institution's Future Directions

As Old Dominion builds toward the future, it is giving special attention to fostering a multicultural academic climate. Particular emphasis is being placed on the recruitment and retention of minority and women faculty and staff. The University continues to fulfill its mission by strengthening its academic programs at the undergraduate and graduate levels and by developing appropriate new programs. The University's research continues to expand and address issues related to the urban environment, economic development, engineering, marine science, and business, and to the behavioral, biological and physical sciences. Specialized centers and institutes have been established to facilitate faculty research in selected areas.

Public service is receiving increased emphasis through programs offered both on and off campus. To enhance the quality and scope of higher education services, Old Dominion University continues to reinforce and expand its collaborative efforts with other institutions of higher education.

Student Assessment

An ongoing process of systematic assessment is given high priority by the University to measure its accomplishments against its goals. The process includes evaluation of four program components: general education, the major disciplines, remedial education, and student and alumni opinions concerning the quality of academic programs and services. Information gained from these efforts is utilized by the faculty and administration to assure the highest possible quality for all university programs.

A value-added approach is central to the University's assessment program. Faculty create criteria or descriptive statements of student outcomes to be assessed, then design or select instruments to elicit evidence of those outcomes among their students. Initial measurements are made when a student begins a phase of the educational program, in order to provide a baseline for gauging subsequent performance. As students proceed through a course of study, the same or equivalent measures are used again to provide feedback on students' educational progress. Finally, when students complete that phase of their education, the same devices are used as exit measures. When compared to students' entry scores, these exit measures establish the "value added" by the educational experience at Old Dominion University.

During its initial year of assessment, the University employed a cross-sectional approach to the value-added paradigm; that is, the performances of freshmen and seniors were compared concurrently. Longitudinal data will continue to be collected on entering students.

Findings from the various assessment components give strong evidence that Old Dominion University has a significant influence on its students. On all scales of the general education instruments—including writing, critical thinking, quantitative reasoning, and functioning in adult roles—the performance of seniors is significantly higher than that of freshmen. The pass rates in entry-level writing and math courses of former developmental studies students are not significantly lower than those of students who place directly into those courses. Although math and algebra are the most difficult of the developmental courses, their rates of student improvement are also the highest. Faculty use an improvement index each year to evaluate the math and algebra program and employ a variety of techniques to improve student proficiency. These include individualized instruction, test score analyses, and curricular and pedagogical revisions. Students who receive their degrees from the institution felt themselves to be nationally com-

petitive; they are satisfied with their undergraduate experiences and would choose to attend Old Dominion University again.

Various approaches to assessing the major programs have yielded generally positive results. Faculties—such as those in teacher education, biology, dental hygiene, and sociology/criminal justice—developed their own instruments and then observed that most of their students had met predetermined proficiency criteria. Understandably, these faculties view the results as a positive commentary on current curricular and instructional practices, although additional data are needed for more accurate program portrayals. Likewise, the Department of Chemical Sciences looked on above-average scores of its students on the Educational Testing Service Major Field Achievement Test as encouraging evidence of its program's effectiveness and will continue to use the MFAT and other tests to assess the quality of its curriculum.

A complex individualized assessment process is central to the performance-based curricula of the departments of music, medical technology, and the College of Business and Public Administration. These faculties have identified measurable skills and knowledge that their students must possess and have developed or selected instruments to evaluate those behaviors. Through a series of tests, performance samples, and simulated practical experiences, the faculties determine how much students have developed from the beginning to the end of each phase of the curriculum. This information is then used to give students diagnostic feedback and to certify that each student has achieved the identified abilities before graduation.

In the Department of Medical Technology, for example, findings from the assessment examinations disclosed that students' pursuit of that major did not result in equal skill levels in all clinical specialities. Based on this information, the faculty will undertake an extensive review and revision of the specialty curriculum, cooperate more closely with clinical instructors in strengthening theoretical concepts, and require more extensive review by students prior to taking their licensing examinations.

Test scores in the College of Business and Public Administration convinced the faculty that students' acceptance of and agreement on the purposes of assessment are crucial to the reliability of their performance. The persistently small differences in sophomore and senior test scores on the Developmental Dimensions International Series are expected to broaden in another year as testing time is reduced and tests are administered at the convenience of the students.

The College of Engineering and Technology uses as a basis of assessment the Fundamentals of Engineering Examination (FE). Administered to students across departments, the examination can be used to compare students with national norms and to assess the quality of the engineering and technology curricula. Although the engineering faculty have inferred from the high pass rate that ODU students score at or above the national mean, the faculty are reluctant to use the FE to evaluate programs, since the only information available is the percentage of students who passed the test. In the future, the college may use the Educational Testing Service Major Field Achievement Test in Engineering to evaluate the engineering curriculum.

Faculty of the School of Dental Hygiene have instituted a variety of assessment strategies to ensure that curricular and instructional goals are met. Students' scores on national and regional examinations are used to satisfy licensing requirements, as well as to identify program strengths and weaknesses. The pass rates of ODU's dental hygiene students are above 98 percent on the National Dental Hygiene Board Examination, 96 percent on the Southern Regional Board Dental Hygiene Board Examination, and 100 percent on the Northeast Regional Dental Hygiene Board Examination. Although these results confirm and substantiate the achievement and performance level of their students, the dental hygiene faculty posit that constant, careful product evaluation must be continued in anticipating changes in the composition of the program or the student body. Two methods of evaluation are used: an exit interview with graduating seniors and frequent consultations with an advisory board of local oral health services experts. Recommendations from these sources have caused the faculty to take several steps to improve program and curricular offerings. Unnecessary courses have been deleted, thus allowing more time in courses with fewer credits per semester; additional rotation sites have been identified for course experiences; and some coursed have been redesigned to include state-of-the-art materials technology and applications. The school also has invested in a new videotape series for instructional use and has significantly increased faculty development activities.

Although the outcomes assessment program at Old Dominion University has yielded encouraging results, the University will continue to take steps, guided by evaluation, toward perpetuating a high-quality public university with demonstrated excellence in selected fields. Program heads in all colleges will continue to use outcomes data to inform the processes of teaching, advising, and improving curricula.

Academic deans will add outcomes information to their sources of data for program evaluation. Central administrators in student services and academic affairs will consider outcomes data as they make strategic decisions about program mix, allocation of resources, and faculty development.

The assessment program has created an environment that emphasizes the essential mission of Old Dominion University: namely, the education and achievement of its students. It has increased faculty awareness of national expectations for university graduates and the competitive strength of our graduates in the job market after graduation. It has provoked discussion about student satisfaction with university services. It has reinforced the value of general education and pointed directions for strengthening this curriculum. Finally, assessment has directed attention of the public outside the University to the institution's demonstrated excellence in performance.

The future of the assessment program is positive. Its legitimacy has been established and its importance to the University will continue to increase. At a time when the pressure for external evaluation of colleges and universities is intensifying, the assessment program helps Old Dominion University to assure that its mission is enhanced and substantiated.

Old Dominion University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	13,545	13,007	12,733	12,859	12,901
Fall Enrollment	16,239	16,364	15,640	15,365	15,865	15,020
First-Time Freshmen Enrolled	1,755	2,141	1,929	1,761	1,800	1,730
First-Time Transfers Enrolled	1,010	1,037	1,015	985	1,121	1,155
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	2,082	2,005	1,705	1,916	1,949
Master's Degrees Awarded	—	554	541	425	501	405
Doctor's Degrees Awarded	—	44	31	19	16	15
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 16,239

Male	48.0%
Female	52.0%
In-State	81.0%
Out-of-State	19.0%
Full-Time	64.8%
Part-Time	35.2%
On-Campus	90.5%
Off-Campus	9.5%
Black	10.5%
White	81.2%
Other Races	8.2%
21 and Under	39.2%
Over 21	60.8%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	533
Education	198
Engineering & Related Tech	191
Engineering	182
Social Sciences	148
Computer and Information Sciences	110
Allied Health	107

*average per year

Course Distribution 1988-89*
(Percentage of Instructional Effort)

Social Sciences	14.4%
Letters (English/Literature)	12.4%
Business and Management	12.1%
Education	12.1%
Engineering	8.1%
Mathematics	8.0%
Physical Sciences	8.0%
Fine and Applied Arts	5.7%
Psychology	5.4%
Biological Sciences	4.0%
Computer and Information Sciences	3.0%
Health Professions	3.0%

1989 First-Time Freshmen Admissions

Applied	6,647
Accepted	5,137
Enrolled	1,755
Acceptance Rate	77.3%
Enrollment Rate	34.2%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$2,341,329	$55,408,579	4.23
1986-87	$7,445,250	$179,451,325	4.15

All figures as of January 16, 1990
*On-Campus only

Radford University

Radford University was established by the General Assembly in 1910 as the State Normal and Industrial School for Women at Radford and has been in continuous session since its formal opening in 1913. The school became Radford State Teachers College in 1924 and was authorized to award the Bachelor of Arts degree in 1935. In 1944 the College was consolidated with Virginia Polytechnic Institute as its Women's Division and renamed Radford College. The General Assembly severed the institution's formal affiliation with Virginia Tech in 1964. At that time an autonomous Board of Visitors was established for Radford College, and the College was authorized to grant the Master of Science degree. In 1972, after almost 60 years as a college for women, Radford became coeducational, and in 1979 the institution was granted university status by the General Assembly.

Today Radford University is a coeducational, comprehensive, residential undergraduate institution with selected graduate programs. Since 1972 the total enrollment has increased by more than 169 percent. During the Fall of 1989, enrollment reached 9,555 in both on- and off-campus programs. Radford's students come from all over the Commonwealth: 34 percent from western Virginia, 25 percent from northern Virginia, 10 percent from the Tidewater area, and 20 percent from Richmond and central Virginia. More than 12 percent come from other states and countries. While serving as a residential campus (over 3,418 live on campus), the University

also attracts local students who live within commuting distance of the campus.

Radford maintains strong programs in the liberal arts, the fine arts, teacher education, business and other professional fields. Presently the institution offers, in a medium-sized university environment, 80 undergraduate degree programs (including professional and pre-professional) in the Colleges of Arts and Sciences, Business and Economics, Education and Human Development, Visual and Performing Arts, and Nursing and Health Services. The Graduate College offers 31 degree programs at the master's level and the Educational Specialist degree in school psychology. The graduate program provides advanced and specialized courses of study, supervised practicum experiences, and opportunities for research.

Purpose of the Institution

As a part of Virginia's diversified system of higher education, Radford University fulfills the role of a medium-sized comprehensive university serving the entire Commonwealth. The pervasive commitments of the institution are to teaching and student learning; to the widespread participation of the faculty, students, and staff in the affairs of the institution; and to a demonstrated willingness to change. As the institution's mission statement notes, "Through a sound and comprehensive general education and carefully tailored major program options, students at Radford are challenged — intellectually, culturally, socially and personally. Within this context, they can develop into mature, responsible, well-educated citizens."

Extent of the Institution's Mix of Instruction, Research and Public Service

As a public university, Radford assumes a respon-

sibility to address societal issues and needs through scholarship, research and creative activity. Because it is a student-oriented institution, Radford has set as its first priority a commitment to successful teaching. This commitment notwithstanding, research and professional activities are encouraged, and all faculty are expected to make "professional contributions" to the institution and to their respective disciplines. Radford's position is that research and teaching are not mutually exclusive activities and that research can and should be a vital part of the teaching transaction.

The University, with its primary emphasis on teaching, also attempts to serve the public needs of western Virginia with a wide range of academic, cultural and human service programs. Off-campus courses and programs are offered throughout the Western Region Consortium area, including an evening college in Roanoke. The University responds to the special continuing education needs of school systems, businesses, industries and individuals in both the urban and rural areas of western Virginia. Radford is committed to meeting the educational needs of full-time employed adult residents of the western region for high-demand programs by providing evening courses both on-campus and at off-campus locations.

The Institution's Future Directions

Within the Virginia system of higher education, Radford University will continue to be a comprehensive institution of medium size with a primary focus on effective teaching. To respond to the state's Commission on the University of the 21st Century, Radford is proposing a new College of Global Studies, affiliated with the main campus but geared toward meeting the increasing need for a globally oriented education. This innovative initiative will feature multidisciplinary curricula with a pervasive global perspective. The new College will put Radford University in the forefront in preparing students for world citizenship. The creation of this college is Radford's latest demonstration of its commitment to providing future students with the best education possible.

Student Assessment

To ensure the continuing high quality of the higher education experience at Radford University, a plan for assessing undergraduate student outcomes was developed during 1986 and the spring of 1987. In June of 1987, the Radford University Plan for Assessing Undergraduate Student Outcomes was submitted for approval to the State Council of Higher Education in Virginia (SCHEV). The plan was approved with modifications and has since provided the framework for implementing assessment of student outcomes at the University. This plan reflects the uniqueness of the mission of the University, the students, and the goals of the academic programs and identifies the knowledge, abilities, and skills that all undergraduates should develop in their college careers. Efforts have focused on four general areas: assessment of high-risk students, assessment of general education, assessment of the major, and assessment of alumni.

In assessing student outcomes in these areas, Radford University has pursued an "organic approach" to assessment. This means that where possible it integrates the process of assessment into existing frameworks and practices. Existing points of contact with students are utilized, thus minimizing faculty and student time and effort devoted strictly to assessment. This approach to assessment has proven to have several advantages, perhaps the most important of which is that it ensures that the assessment is consistent with what goes on in the classroom and what the University wants to know about the educational process, information that will lead to the improvement of teaching and learning at Radford University.

In each of the four major assessment areas, there are several projects to assess student outcomes, to assist faculty, and to develop curricula. In some cases, the information leads to specific modifications in curricula; in other cases, the information leads to a general problem that needs a closer look; in still other cases, the information is inconclusive.

In general education, Radford has participated in the national pilot testing of the short form of the Educational Testing Service's (ETS) Academic Profile test and its subsequent revision, the Academic Profile II. The purpose was to compare the performance of those who had taken none or few of the general-education courses with those who had taken most or all of their general-education requirement. As expected, seniors scored higher than the freshmen on both administrations of the test. And in both administrations, each of the groups scored better than the norm when compared to students from other schools who took the test. However, results from these tests have been inconclusive because they do not point to specific changes that can be made to improve the educational experience at Radford. This concern has led the University to plan to administer the long form of the Profile to small samples of incoming freshmen in the Fall of 1989. The advantage of this longer form is that more detailed reporting should indicate areas needed to be investigated further with the University's own instruments. A cross-disciplinary committee has been assembled to review this new, longer test, the test results, and their utility for Radford University.

Student opinion about the general-education core has been another source of information regarding those programs. Results from the 1989 graduating student survey suggest that further work needs to be done to enhance the transmission of knowledge from general-education courses across the curriculum. Students were asked about RU's contribution, overall and in just the general-education courses, to seven skills: intellectual growth, personal growth, social growth, aesthetic/cultural growth, reasoning ability, critical thinking ability, and writing/speaking ability. Though most students reported moderate to large gains in most of the skills in general education coursework, more significant gains were perceived in the areas of writing/speaking ability and reasoning ability. These perceived gains may likely be a reflection of the strength of Radford's writing-across-the-curriculum program and its new oral-communications program. Building on the success of these integrative programs, the College of Arts & Sciences will conduct a pilot CLUSTERS program with a sample of incoming freshmen in an attempt to integrate instruction in oral and written communication skills and in mathematical analysis with natural-science and social-science content.

Though results of this survey point out some of the strengths of our general education program, there are still students, for whatever reason, who don't seem to do as well as others. Of concern are the 20 percent of students who felt they made no or small gains in each of the seven skill areas. Examination of the data reveals that these students do not differ by specific demographic characteristics (sex, race) or by grade-point average from those who perceived the general-education experience to be more beneficial. Further studies are planned to find out more about this group of students so that all students will receive the benefits of a solid general-education core curriculum.

In 1988-89 six of Radford's academic departments conducted formal assessments of their programs and their curricula through an examination of student outcomes. By the end of 1992, every department will have in place a process for measuring student outcomes on several previously defined dimensions. These measurements will vary from department to department and from objective to objective.

English

Among the departments that implemented formal assessment proceedings in 1988-89, the Department of English initiated a review of requirements for the English major that included external review by the National Council for Accreditation of Teacher Education and the National Council of Teachers of English, development of a profile of students who are currently English majors, collection of information from graduating English majors about their perceptions of the program's effectiveness in achieving specified curricular goals, and the administration of the Educational Testing Service's Major Field Achievement Test in Literature in English. Through these efforts, the department determined that some curricular revisions were necessary. Among these revisions will be new courses to ensure that students have opportunities to study literature written by ethnic and racial minorities and women. New courses in adolescent literature and in the teaching of English language arts are also being added to improve the preparation of prospective secondary English language-arts teachers. Changes in requirements for the major as well as improved student-teaching supervision will also be implemented.

Computer Science

Computer Science faculty chose to pilot the newly developed ETS Major Field Achievement Test in their area and to investigate classroom activities that support the department's goals for its majors. Though data are not yet available from the Major Field Achievement Test, the department has analyzed the results of a supplemental survey asking students about their perceptions of the test. Students felt the test was a close match to their coursework in two areas, a moderate match in four areas, and a poor match in one area. Ratings from faculty who reviewed the test were similar to the students' ratings. These results indicate that the MFAT may be used as a future supplement to the Graduate Record Examination (GRE) required of all majors.

Investigation of classroom activities through survey data and faculty examination of departmental goals revealed that all but one of the goals were adequately supported by the curriculum. As a result of this investigation, the department discovered the need to review the appropriateness of these goals in light of the rapid growth of the field.

Geology

The Department of Geology sought to define clearly the mission of the department and to assess its effectiveness in fulfilling this mission. Students are to be assessed in three stages of their careers: entrance to the program, exit from the program, and follow-up. For each major, a student profile is being established, including general background data (high-school rank, SAT scores), job data, and other schooling. The follow-up alumni survey was the principle focus of the departmental assessment effort this year. Alumni were asked to review the department's ten objectives, rate them, and rank them. Based on the responses and eight identified areas of concern, the following curricular changes have occurred: a new two-semester sequence of required courses has been added that focus on the "professional development" of majors; a new general-education requirement has been implemented; and a new 200-level course will replace an old course that placed too much emphasis on identification and memorization of taxa.

Chemistry

The Chemistry Department administered a locally developed exit examination for majors. The instrument was made up of four components: general chemistry (20 percent), organic chemistry (30 percent), analytical chemistry (30 percent), and physical chemistry (20 percent). These components and percentages reflect the current emphasis in the curriculum. Results from this test are currently being analyzed and will be used by the department's curriculum committee to examine the structure of coursework leading to the B.A. and B.S. degrees. Special emphasis will be given to an examination of the department's introductory courses to see how majors might be better prepared for later courses and future careers and how faculty might screen potential students more effectively.

Geography

The Department of Geography has focused on reworking its goals and objectives and has used surveys of faculty and students as a means of gathering information to facilitate that process. One of the greatest strengths of the department has been found to be its preparation of majors for a wide variety of careers.

Future assessment efforts will focus on just how well graduates function in the work place.

Foreign Languages

In the Department of Foreign Languages, parts of standardized tests were used in combination with locally developed instruments to examine the outcomes of majors. One problem with standardized language instruments has been that the cultural sections of the examinations tend to become outdated. The faculty working in these areas opted for updating of the tests through locally developed instruments, surveys of current students and alumni, and interviews. Initial findings with relatively small samples of students indicate that those students who had not studied or lived abroad or who did not fully utilize the study-abroad opportunity for practice in using the language tended to score consistently lower on the several instruments used.

Academic Retention Program

The University is committed to the development and implementation of a plan to provide a long-range solution to the problem of the under-prepared student. Typically this underpreparedness relates to more than low high-school g.p.a. and low SAT scores. At Radford, few students enter the University who are truly "at risk." More often students demonstrate, as they progress through the various curricula, that they need guidance and special attention to succeed. Programs in place to provide such guidance include the Academic Retention Program, aimed at helping student who would otherwise be academically suspended from the University; and the Student Transition Program, which provides general academic assistance through counseling, tutoring, and basic skills development for underprepared minority students. Evaluations of these programs suggest that further efforts need to be made to measure and improve upon students' affective growth in areas such as motivation, self-confidence, and vocational maturity.

Alumni Survey

Recognizing that the educational success of any university is ultimately measured by the knowledge, success, and contribution of its graduates, Radford University has begun a more coordinated effort to follow-up on its alumni. The new graduating student survey provides important student opinion information regarding University programs and services. These opinions are routed back to departments and offices and some changes have been instituted as a result. Changes that can be traced through this feedback loop as being effected, at least in part, by this information include the creation of an open microcomputing center housed in the Writing Center; making computer methodology a part of the required history research course; the re-activation of some student clubs and organizations; examination of the curricula within several departments, specifically dealing with availability of required and desired courses; and looking at both curricular and career advising in certain areas. This survey, a six-month follow-up questionnaire from the Office of Career Planning & Placement, and five- and ten-year alumni surveys provide information about the success of Radford graduates.

The self-examination created by the assessment process has already paid dividends for the University and its students. Radford University students perform well on standardized tests when compared to national norms and are pleased with their experiences at the University: nearly 95 percent of 1989's graduating seniors felt satisfied or very satisfied with their overall experiences at Radford. Assessment at Radford has become a part of the climate of the school, providing information to guide curricular and faculty development. The ultimate goal is to enhance the teaching and learning process at the University.

Radford University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	8,747	8,010	7,165	6,769	6,358
Fall Enrollment	9,555	8,764	8,122	7,652	7,000	6,802
First-Time Freshmen Enrolled	1,976	2,039	2,047	1,850	1,700	1,402
First-Time Transfers Enrolled	572	539	477	439	479	465
Associate's Degrees Awarded		0	0	0	0	0
Bachelor's Degrees Awarded		1,177	1,051	1,004	999	1,059
Master's Degrees Awarded		170	187	162	198	159
Doctor's Degrees Awarded		0	0	0	0	0
First Professional Degrees Awarded		0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 9,555

Male	37.1%
Female	62.9%
In-State	87.4%
Out-of-State	12.6%
Full-Time	85.9%
Part-Time	14.1%
On-Campus	96.0%
Off-Campus	4.0%
Black	3.1%
White	92.3%
Other Races	4.6%
21 and Under	67.7%
Over 21	32.3%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	325
Education	125
Social Sciences	87
Health Sciences	70
Letters (English, Literature)	52
Protective Services	46
Visual and Performing Arts	44

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	18.7%
Letters (English, Literature)	12.8%
Business and Management	10.8%
Education	9.9%
Fine and Applied Arts	9.7%
Psychology	7.6%
Mathematics	7.4%
Biological Sciences	5.9%
Physical Sciences	4.7%
Communications	3.5%
Computer and Information Sciences	2.9%
Health Professions	2.5%

1989 First-Time Freshmen Admissions

Applied	6,938
Accepted	4,946
Enrolled	1,976
Acceptance Rate	71.3%
Enrollment Rate	40.0%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$7,200	$2,863,488	0.25
1986-87	$154,512	$4,652,522	3.32

All figures as of January 16, 1990

*On Campus only

Richard Bland College of the College of William and Mary

Founded by an Act of the General Assembly in 1960, Richard Bland College was established as a branch of The College of William and Mary in Virginia to provide opportunities for higher education to the citizens of southside Virginia. The College opened to students at its permanent location in Petersburg in September 1961.

Richard Bland College today is a two-year, state-supported college. It continues to be governed directly by the Board of Visitors of The College of William and Mary. Approximately 1150 on- and off-campus undergraduate students are enrolled, with about 97 percent being Virginia residents. About 81 percent of the institution's students are enrolled in programs in the arts and sciences, with the remainder in business. All students receive a firm grounding in liberal studies.

The College consists of the Divisions of Business and Computer Science, Humanities and Fine Arts, Life Sciences, Mathematics and Physical Sciences, and Social and Behavioral Sciences. The Associate in Arts, Associate in Science, and Associate in Science in Business degrees are offered.

Purpose of the Institution

Richard Bland College, the branch college of The College of William and Mary in Virginia, offers transfer associate degree programs in liberal arts and sciences, business, and other career programs appropriate to a junior college. The College also recognizes its responsibility and role in community education, public service, and community cultural activities.

Although semiprofessional skills are developed in appropriate programs, the College's curricular emphasis is on general education courses offered during the first two years of a baccalaureate degree program. Developmental programs are provided for students who need to improve skills necessary for success in college.

Summer programs in basketball, football, soccer, computers, and foreign languages are offered for elementary and secondary students in the area. The College is also actively engaged in programs associated with gifted children and accelerated high school students.

Richard Bland believes that its uniqueness in the state system of higher education lies in its continuing concentration on the preparation of its students for transfer to senior institutions, particularly those institutions with whom it has signed articulation agreements. The College of William and Mary has a special transfer relationship with Richard Bland.

The Institution's Mix of Instruction, Research and Public Service

As would be expected in a primarily liberal arts junior college, the major focus of the institution is instruction. Research activities are generally limited to efforts by individual faculty members to strengthen their academic specialities. Public service is offered through the College's speakers bureau and through consulting activities of the faculty and staff with area agencies, institutions and service organizations.

The Institution's Future Directions

Richard Bland College will continue to offer transfer associate degree programs in liberal arts, business administration, and career programs that are appropriate for a junior college. Such programs might include associate degree programs in some areas of the performing arts and allied health professions.

By adding a full-time professor in geography and international studies, adding emphasis to the international forum series, and expanding a faculty and student international educational travel program, the College will emphasize the acquisition of foreign language skills, develop an understanding of foreign business opportunities, and create an international studies program that will more realistically prepare students for the twenty-first century.

For the remainder of the decade of the 1990's, the College will attempt to serve more students who enter the College under the provisions of articulation agreements with the more selective senior colleges in the Commonwealth.

The institution might also propose a two-year residential program for students from throughout Virginia who prefer the learning environment that a small liberal arts junior college can provide. This residential program would assist in meeting the increasing enrollment demands that will be placed on the Commonwealth early in the twenty-first century.

Student Assessment

Educational Goals—The College faculty has identified eleven educational goals:

(1) read critically and think analytically;

(2) strengthen quantitative skills;

(3) apply the scientific method;

(4) communicate effectively in speaking and writing;

(5) acquire organizational and research skills;

(6) understand how the present is formed by the past;

(7) appreciate the arts;

(8) evaluate and respond to social and technological change;

(9) understand and practice the principles of health;

(10) be a better informed and responsible citizen; and

(11) prepare for transfer to a senior-level institution or for a career.

The College Outcome Measures Project (COMP)

Since 1985, the College Outcome Measures Project (COMP) of the American Council on Testing (ACT) has been used as a measure of general-educational outcomes at Richard Bland College. This test was administered to samples of entering freshmen and graduating sophomores in an attempt to measure in part several of the educational goals as identified by the faculty.

Educational Goals	COMP Sub-test
Read critically and think analytically	Solving Problems
Apply the scientific method and acquire organizational research skills	Using Science and Technology
Communication effectively in speaking and writing	Communicating
Appreciating the arts	Using the Arts

Evaluating and responding to social and technological change	Functioning within Social Institutions, Clarifying Values, & Using Science and Technology

Overall, the results suggest that the educational goals of the College are being achieved, as indicated by a significant gain in scores from the freshman to sophomore years. Richard Bland sophomores did best in the area of clarifying values, and their relatively weakest areas were solving problems, understanding the arts, understanding science, and communications.

In the area of general education, there is room for improvement. During the 1989-90 academic year, several faculty development workshops and conferences will be held in an attempt to produce program improvement and curricular refinement. Specific efforts will be directed to ways to increase students' abilities in the area of problem solving. Three credits in art history, art appreciation, or music appreciation were added to the core curriculum. As of Fall 1989, a full-time speech/theatre faculty member has been hired.

With the recent increases in enrollment and the tendency towards larger sections, faculty might resort to lecture, multiple choice, and the scantrom to the detriment of evaluating reading comprehension, oral class participation, and writing across the curriculum. Efforts are being made to reduce class size in certain classes so as to provide more individual instruction, and due to increased enrollment, recently approved faculty positions have been added for the 1989-1990 academic year. Faculty will be encouraged in their efforts to strengthen reading, oral participation, and writing across the curriculum.

Articulation and Follow-Up Studies

In 1986, Richard Bland College began to address formally the long-range effect that the instructional program has had on the students who enrolled in the College's three transfer-oriented associate-degree programs.

Articulation Agreements

The first step was to seek to develop a more formal relationship with the public four-year colleges and universities in the Commonwealth. Since 1987 the College has concluded 13 articulation agreements, and dialogue is continuing with other colleges. Preparing students for transfer has been enhanced by these agreements; existing ones will be reviewed annually and new ones developed as needed.

In addition to the articulation agreements and as a result of their development, the Instructional Programs Committee has been developing specific transfer guides to selected four-year colleges and universities.

Follow-Up Studies

The second step was to conduct follow-up studies on the College's student body. During the 1987-88 academic year, Richard Bland College initiated a comprehensive research project involving 657 RBC transfer students who subsequently enrolled in nine four-year public institutions in the Commonwealth.

This study suggested that, overall, Richard Bland is fulfilling its primary mission of offering transfer associate degree programs in liberal arts, business administration, and other programs appropriate for a junior college. As a result, the College's graduates transfer readily to senior institutions in Virginia and throughout the United States.

Course Transferability

Information from this study also shows that for those students who spent a minimum of two years at Richard Bland College, the four-year institutions accepted an average of 63.18 semester hours from the College. One may conclude that more than the normal number of courses taken at the junior college are being fully accepted at the four-year school, since there were a number of students who transferred fewer than fifty credits.

Copies of course syllabi are being kept in a central file if questions are raised by the senior institutions regarding specific courses. The Instructional Programs Committee will monitor the curriculum and make appropriate changes to courses, programs, and requirements. As a result of the assessment, a few courses that students had difficulty in transferring have been eliminated from the 1989-1991 College catalogue.

Due to the findings in the study, introductory and intermediate level courses in computer applications have been redesigned, with heavy emphasis being placed on business-oriented, computer-based systems. All accounting and marketing courses will be listed under the heading of business so as to facilitate transfer. These changes resulted from the College's determining that a large number of Richard Bland students major in business at the four-year schools.

To broaden the course offerings in the social sciences, courses in cultural geography and major world regions will be added to the curriculum, effective with the 1989 fall semester.

Students Majors

The review of the 657 transcripts for the 1981-1987 period indicated that 313 had selected a major at the senior institution or had graduated from that college. Forty-one percent of the College's students who had declared majors selected one in the broad discipline of business. The next choices were social sciences (government, history, psychology, sociology) at 18 percent and the allied health area with 17 percent. The remaining were in a variety of disciplines. The College's counselors are advising new students of this information concerning major and career choices, and the College faculty will be made aware of their former students' career fields. The Instructional Programs Committee will be encouraged to continue to be assertive in reviewing and revising the core curriculum, degree requirements, and course offerings, within the transfer context.

Grade-Point-Average Comparisons

Information was developed to assist the Richard Bland College faculty in their respective disciplines by seeing how well their former students did at the four-year institutions as compared with their performance at Richard Bland.

Results indicate that irrespective of the major, the students, when transferring to the four-year college or university, did very well. Each discipline at the College has been asked to review the data applicable to its discipline. The grade-point average differential between Richard Bland College and the four-year institutions is marginal; however, the College will continue to follow-up on its transfer students.

Follow-up studies will continue to be an integral part of the Richard Bland College assessment program. The College will continue to focus its major effort in those areas that will best facilitate transfer between the College and the four-year institutions. Formal articulation agreements will serve as the vehicles to achieve this end.

Alumni, Faculty, and Student Surveys

Five surveys were developed in an attempt to measure the attitudes and opinions of faculty, adjunct faculty, alumni, and students. The surveys were conducted during the spring of 1987. Survey questions relevant to assessment were analyzed, progress reported, and recommendations made for further improvement.

Asked if Richard Bland College was serving them adequately, 93 percent of the students responded yes. Asked if they would recommend Richard Bland College to another student, 96.5 of the students responded yes.

Faculty and students were asked to assess the extent to which the College's curricular goals were being achieved. Perceived weaknesses in art appreciation and communication reinforce the findings of the ACT/COMP, the reactions to which are described in the general-education section. Faculty will be encouraged to articulate and embody the College's curricular goals appropriately in course syllabi and teaching approaches. In the spring of 1988, the Admissions and Academic Standards Committee also reviewed and revised the admissions policy, and another committee initiated a sequence of honors courses to meet the needs of the stronger student.

Asked how often they met with their academic advisor, only ten percent of the students responded often, 64 percent occasionally, but 26 percent never. These results suggested a lack of staff and staff time. Since spring of 1988, student services personnel have been increased. Once student services has initiated the advising, faculty can resume a share of the academic advising. Student Services will provide faculty academic advisors with current articulation agreements with the four-year institutions.

While day students tend to use libraries closer to their homes, faculty and students in the Evening College are frustrated by the library's limited evening and weekend hours. Richard Bland will explore the feasibility of an expansion in the library's hours.

Developmental Courses

There are currently three developmental courses offered at Richard Bland College: one in English and two in mathematics. The English and mathematics courses are three hours of institutional credit each.

are not designed for transfer, and do not count towards a degree. Follow-up studies have just been completed by the mathematics faculty, and an evaluation of this work will be completed in the fall of 1989. In general, the long-term success of remedial students is not as great as the College would like. Consequently, during the spring of 1989, an ad hoc committee developed the Program for Marginal Students.

There are several areas that are currently being reviewed in our assessment of developmental courses. With the fall semester 1989, Psychology 100 will be offered. This course is an introduction to library skills, time management, and study skills and will carry one hour of institutional credit. It is not designed for transfer and will not count towards a degree. Any student admitted to the College who had less than a 2.0 grade-point average in high school will be required to enroll in this course. Its primary goal is to help marginal students in all of their course work, which could increase the percentage of students successfully completing their English and mathematics requirements.

The College is also changing the English placement test, eliminating the grammar test and increasing the time allowed and the completeness of instructions for the essay portion. The alterations are in preparation for designing writing assignments that can be used as pre- and post-testing instruments. The Assessment Committee, the English Department, and the Mathematics Department are all currently working on means for measuring student progress in addition to our current approach of using success in college-level courses.

Richard Bland College - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	837	709	643	626	647
Fall Enrollment	1,169	1,015	908	887	903	956
First-Time Freshmen Enrolled	435	418	339	309	276	319
First-Time Transfers Enrolled	139	119	99	104	126	190
Associate's Degrees Awarded		128	125	129	110	120

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 1,169

Male	39.9%
Female	60.1%
In-State	97.1%
Out-of-State	2.9%
Full-Time	65.7%
Part-Time	34.3%
On-Campus	88.0%
Off-Campus	12.0%
Black	17.7%
White	77.9%
Other Races	4.4%
21 and Under	67.9%
Over 21	32.1%

Most Popular Associate's Degrees 1984-85 to 1988-89*

Physical Sciences	56
Liberal/General Studies	49
Business and Management	17

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	18.8%
Letters (English, Literature)	15.8%
Mathematics	14.6%
Biological Sciences	9.8%
Psychology	8.7%
Business and Management	8.6%
Education	8.3%
Computer and Information Sciences	5.6%
Fine and Applied Arts	5.2%
Physical Sciences	2.9%
Foreign Languages	1.6%

1989 First-Time Freshmen Admissions

Applied	592
Accepted	540
Enrolled	435
Acceptance Rate	91.2%
Enrollment Rate	80.6%

All figures as of January 16, 1990
*On-Campus only

University of Virginia

The University of Virginia, founded by Thomas Jefferson, is a major comprehensive state university of national character and stature. It was established following enactment of a statute by the Virginia General Assembly in 1819 providing that "there shall be established, in some convenient and proper part of the State, the University of Virginia, wherein all the branches of useful science shall be taught." The University is a coeducational institution with most of its students enrolled full-time and a large number living on grounds. The fall 1989 enrollment of the University was 20,879.

The University is composed of the College of Arts and Sciences and the Schools of Architecture, Commerce, Education, Engineering and Applied Science, Graduate Arts and Sciences, Graduate Business Administration, Law, Medicine, and Nursing. The Division of Continuing Education provides courses for part-time students at seven off-campus locations throughout the state. Clinch Valley College of the University of Virginia is located in Wise County. The University of Virginia Health Sciences Center, which offers students in the health sciences a variety of settings in which to learn, also provides health care through its hospitals and clinics.

The University of Virginia offers undergraduate programs leading to degrees in architecture, architectural history, arts and sciences, commerce, education, engineering and applied science, nursing, and planning. At the first professional and graduate levels, the University offers programs leading to degrees in accounting, arts and sciences, architecture, architectural history, business administration, education, engineering and applied science, landscape architecture, law, medicine, nursing, planning, and teaching. Seventy-five percent of the undergraduate and 33 percent of the graduate enrollments are in arts and sciences. In 1988 the University conferred one-third of the doctoral degrees and nearly a third of the remaining post-baccalaureate degrees awarded by Virginia's institutions of higher education.

Purpose of the Institution

A university is a community of scholars having as its central purpose the enrichment of the human mind. This central purpose is served, at the University, by activities designed to quicken, discipline, and enlarge the intellectual and creative capacities, as well as the aesthetic awareness, of its members. In addition, the institution is committed to recording, preserving, and disseminating the results of its intellectual inquiry and creative endeavors. The University seeks to achieve its purpose through the pursuit of specific goals, including educating men and women in undergraduate schools and programs, graduate schools, and graduate professional programs; providing an atmosphere conducive to participation in the affairs of the University and of the community at large, and by expanding opportunities for persons with special challenges; leading in the advancement and application of knowledge through graduate study and research, including research in the medical sciences; providing innovative leadership in health care and medical services in the local community, the Commonwealth, and the nation; contributing to education in the Commonwealth and beyond by offering a variety of continuing education opportunities, as well as by assisting other colleges and educational institutions by making available to them the facilities of the University and the experience and counsel of its members; offering to the Commonwealth of Virginia and the nation the various kinds of public service and intellectual and cultural activities which are consonant with the university's purpose; and establishing appropriate new programs, schools and degrees.

Extent of the Institution's Mix of Instruction, Research and Public Service

The University of Virginia places equal emphasis on the programs of instruction and research. Both of these programs are essential in a comprehensive doctoral degree-granting institution.

The University carries out research activities in a wide variety of disciplines, most of which are federally or privately funded. Its annual expenditure for sponsored programs is $86.9 million; this amount has increased at a rate of more than 13 percent per year in each of the past two years.

The University accomplishes its service activities principally through its institutes and research bureaus and through programs offered statewide by the Division of Continuing Education. The University of Virginia Health Sciences Center provides patient education and quality health care at primary, secondary and tertiary levels to citizens throughout the Commonwealth and in neighboring states.

The Institution's Future Directions

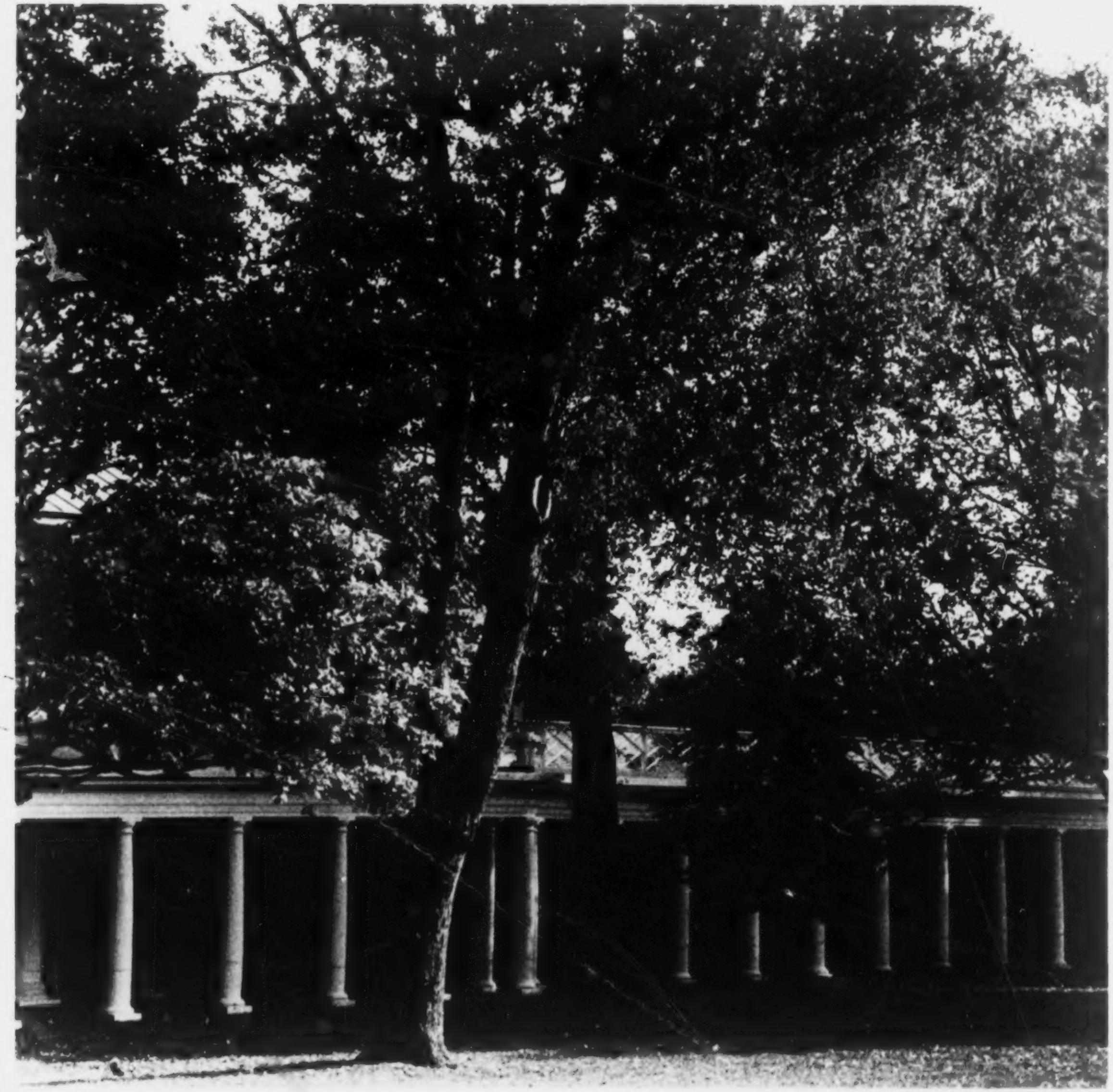
The University of Virginia engages in a constant pursuit of excellence in all areas—not an easy quest when the path to excellence is as complex and highly competitive as that found in higher education today. Work is under way throughout the University on a range of important issues affecting the institution's

future, including ensuring the quality of undergraduate education, determining the role of the University in areas outside central Virginia, developing the outreach activities based at the new University Hospital, defining the role of private support in the University's future, improving the environment for scholarly research, increasing support for graduate students, and expanding the University's public service activities, among many other pursuits.

The future University of Virginia will give serious attention to superior teaching and learning at the undergraduate, graduate, and professional-school levels and will have a faculty of high scholarly stature, a service capacity that helps turn theory into practical benefits, a dedicated support staff fully focused on providing the best environment possible for academic endeavors, and a student body from which the Commonwealth, the nation and the world can draw both its leaders and its hopes for the future.

Student Assessment

It is well known that the University's undergraduate programs attract some of the most outstanding students in the Commonwealth, in the nation, and from throughout the world, and that they do very well at the University. The retention rate from the first to the second year is more than 96 percent. Nearly 90 percent of the students who enter will take degrees. As different generations of students change, the University also strives to change and grow to meet their and their society's future learning needs and aspirations. To encourage this process of continuing growth, the University has undertaken a special study of the first-year undergraduate class of 1988-89 that will continue through the class's graduation. The University strives to learn more about the educational



experiences of undergraduates: their backgrounds, their goals, how they feel about their educational experiences, and, most important, what they are learning. The results will help the University be better prepared to educate the leaders of tomorrow.

The first-year class of 1988-89 is one of great intellectual curiosity and cultural diversity. The average SAT score of the 2,650 students in the class is well over 1200. Their main reason for coming to the University was the anticipated intellectual challenge. Their interests in their future careers, in self-development, in liberal education, and in making a contribution to society also brought them to the University. Minorities make up more than 12 percent of the student body: students of Asian background 8.3 percent, those with an Hispanic heritage 0.2 percent, and non-resident aliens 1.2 percent. A majority of about 60 percent has come planning to major in engineering, the natural sciences, and the social sciences and enter careers in engineering, medicine, and law. Many others will pursue the humanities, architecture, languages, business-related fields, nursing, and the arts.

In addition to their intellectual pursuits, the 1988-89 first-year class also came because of the nature, character, and beauty of Mr. Jefferson's academical village and for the anticipated social life. First-year students rate their entertainment and party lives very highly, but they spend large amounts of time studying and attending classes—an average of 35 hours each week. A large majority studies regularly in the University libraries, where they make regular use of the computerized search facilities and the word-processing equipment. With all the studying, two-thirds of the students also continue to read and enjoy non-assigned reading.

The University believes that one of its greatest strengths for the future is cultural diversity within the student body. Two-thirds of first-year students report they have become acquainted with a different value system and with persons of a different race or nationality. Within a culturally diverse educational community, students sometimes experience and witness racial misunderstandings as they and the community strive toward the goal of greater racial cooperation and appreciation of cultural differences. The University community recognizes the importance of working toward a goal of such understanding and cooperation. With regard to the question how minorities are treated at the University, 37 percent say they are satisfied or highly satisfied, 24 percent say they are dissatisfied or very dissatisfied, and 28 percent are neutral. Black students are about evenly divided in their opinions on how minorities fare at the University: one-third are satisfied or highly satisfied, one-third are dissatisfied or highly dissatisfied, and one-third are neutral.

With regard to how women students feel about their treatment at the University, 70 percent of first-year women students said they were either satisfied or highly satisfied with their treatment. About 10 percent of first-year women indicated they were dissatisfied or highly dissatisfied.

Students in the first-year class believe their greatest learning took place in the social and personal development areas. A large majority listed their greatest learning achievement as gaining a sense of independence, learning to get along with different people, and learning to learn independently. Gaining a broad, liberal education was the fourth most important learning accomplishment listed by first-year students.

While first-year students tend to focus more on personal development goals than on academic goals, they report being very satisfied with their academic lives. More than 80 percent of first-year students said they were satisfied or highly satisfied with their academic lives overall. Two-thirds praised the quality of teaching in the undergraduate program, with less praise for courses taught by graduate students than those taught by the regular faculty. While first-year students were highly pleased with their academic experiences and prized their independence, a majority also wished for more contacts with faculty and an improved academic advising system. These are areas which the University continues to examine while maintaining its commitment to preserving student independence. In the area of personal contacts with faculty members, 42 percent of first-year students report satisfaction or high satisfaction, 19 percent report dissatisfaction or high dissatisfaction, and 28 percent report neutrality. In the area of academic advising, 28 percent report satisfaction or high satisfaction, 49 percent report dissatisfaction or high dissatisfaction, and 19 percent report neutrality.

The first-year class did well academically, with an overall grade point average of 2.96 on a scale of 4.0.

In their lives as students, the large majority (90 percent) are satisfied or highly satisfied with their overall adjustment to college life. The same percentage thinks they have been successful in making new friends and in getting along with their fellow students. They praise living conditions in the dormitories; nearly two-thirds also praise their dorm resident assistants. Two-thirds rate the University's honor system as one of the things they like most. First-year students have raised questions about the University's policies regarding responsible use of alcoholic beverages, but more students agree with the University's policies than disagree: 37 percent of first-year students say they are satisfied or highly satisfied with the University's present rules regarding use of alcoholic beverages, 32 percent are dissatisfied or very dissatisfied, and 29 percent are neutral. The University expects to continue to work with students and others for improvement in this area. First-year students have high praise for the University's student transportation services and for student athletic and sports facilities.

The first-year class of 1988-89 seems quite involved in the arts. Nearly half reported attendance at art galleries, more than half attended theatre productions, and large majorities attended concerts. Nearly one-third report involvement in arts activities as actual participants.

The Transition Program

In order to encourage greater cultural diversity within the undergraduate student body, the University sponsors a Transition Program for students from disadvantaged backgrounds. In the Transition Program students receive special assistance and counseling services in their first two years as they adapt to the University environment. Transition students take regular University courses. Some students in the Transition Program attend a summer preparatory program prior to their first year in order to build up academic and study skills and to begin the adjustment process to a new environment. There were 80 Transition students in the first-year class of 1988-89 (a total of about three percent of the first-year class). The retention rate from first to second year in the Transition Program is 96 percent, the same retention rate as for the first-year class as a whole. On the average, students in the Transition Program completed a total of 26 semester hours with a grade-point average of 2.21 (on a 4.0 point scale).

Other University Self-Evaluation Programs

The University has begun other programs of self-evaluation involving examination of components of the curriculum. In these programs, goals for student learning are established and examples of student work examined to determine the extent to which students are achieving the learning goal. The results of these assessment efforts then will be used to help determine changes and improvements in the student learning process.

One study involves the program in general education; the faculty now is studying clarification of the goals of general education with a plan to begin assessing student achievement of those goals in the 1990-91 academic year.

The faculties of the undergraduate academic departments are beginning to develop programs for assessing student achievement in their majors. Assessment programs in the major fields were in an experimental stage in the 1988-89 academic year and will become fully operational in the 1989-90 academic year. Some departments have senior seminars with the student products being evaluated by outside experts. Other departments have outside experts look at other results of student learning.

The University will begin soon a program in which it asks alumni to provide information on how they see the value of their education after being away from the University for a period of time.

In all of these efforts the University seeks the involvement of its total community both on and off Grounds, to keep it at the forefront of human knowledge and to maintain its commitment to service to the Commonwealth, to the nation, and to the world in the highest traditions of academic excellence.

University of Virginia - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	20,265	20,033	19,865	20,006	19,468
Fall Enrollment	20,879	20,802	21,268	21,615	20,568	22,184
First-Time Freshmen Enrolled	2,574	2,620	2,527	2,557	2,723	2,602
First-Time Transfers Enrolled	505	475	350	595	449	459
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	2,709	2,839	2,809	2,772	2,658
Master's Degrees Awarded	—	1,275	1,244	1,275	1,234	1,104
Doctor's Degrees Awarded	—	242	229	218	217	221
First Professional Degrees Awarded	—	520	498	524	511	506

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus
For Fall 1989 - 20,879

Male	48.6%
Female	51.4%
In-State	65.9%
Out-of-State	34.1%
Full-Time	79.1%
Part-Time	20.9%
On-Campus	85.8%
Off-Campus	14.2%
Black	8.1%
White	84.1%
Other Races	7.8%
21 and Under	50.4%
Over 21	49.6%

Most Popular Bachelor's Degrees
1984-85 to 1988-89*

Social Sciences	738
Letters (English, Literature)	402
Business and Management	312
Engineering	257
Psychology	170
Multi/Interdisciplinary Studies	116
Health Sciences	111

*average per year

Course Distribution 1988-89*
(Percentage of Instructional Effort)

Social Sciences	17.0%
Letters (English, Literature)	12.4%
Business and Management	9.5%
Physical Sciences	6.9%
Law	6.9%
Foreign Languages	6.9%
Engineering	6.8%
Education	5.6%
Mathematics	5.0%
Health Professions	4.9%
Psychology	4.9%
Fine and Applied Arts	4.2%

1989 First-Time Freshmen
Admissions

Applied	12,370
Accepted	4,556
Enrolled	2,574
Acceptance Rate	36.8%
Enrollment Rate	56.5%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$16,947,935	$55,408,579	30.59
1986-87	$57,953,593	$179,451,325	32.29

All figures as of January 16, 1990
*On-Campus only

Virginia Commonwealth University

Virginia Commonwealth University was created by the General Assembly on July 1, 1968, by merging the Medical College of Virginia (founded in 1838) and Richmond Professional Institute (founded in 1917). This merger was proposed by the Wayne Commission in response to a perceived need in Virginia for an urban university located in Richmond. Building rapidly on its strengths, the University has developed as a comprehensive doctoral-granting, research university with a dual campus. Its location in the capital city has provided a real-life laboratory for teaching, research, and public service, the scope of which is local, regional, national, and even international in its impact.

The present 20,390 on-campus students, 90.1 percent of whom are Virginians, are a blend of full and part-time residents and commuters, with an average age for undergraduate students of 26 and for graduate students of 33. The academic disciplines are organized into the College of Humanities and Sciences and 12 schools: Allied Health Professions, the Arts, Basic Health Sciences, Business, Community and Public Affairs, Dentistry, Education, Medicine, Nursing, Pharmacy, Social Work and Graduate Studies.

Research and service to society are considered essential elements of the institution's educational mission. The baccalaureate, master's, doctoral, and first professional degree offerings are structured to serve the needs of today's society. Joint instructional programs are offered with the University of Richmond, the University of Virginia, Virginia Polytechnic Institute and State University, Old Dominion University, and Virginia State University.

Purpose of the Institution

Virginia Commonwealth University is committed to two primary objectives. The first is to provide society with educated professional practitioners who have the capacity to deal with the specialized problems of their discipline and who possess the attributes of broadly educated persons. A parallel objective is to provide advanced study for practicing professionals and broad educational opportunities for the adult part-time student. These objectives necessitate depth and quality in the participating disciplines and strong support from the fundamental disciplines of the arts and sciences.

The institution's primary service area is Virginia, with most of its students coming from central Virginia. A number of disciplines, however, have a national and international student market and reputation. Continuing education is conducted as an extension of the primary functions of instruction and research. The objective is to establish the means by which the University can make its skills, knowledge, and talents useful in addressing the problems that face large population centers. From medicine to accounting to art, the appeal of the University to its students is centered in its broad span of disciplines. This appeal is enriched by 40 educational programs that are unique in the Commonwealth.

Extent of the Institution's Mix of Instruction, Research and Public Service

The University offers a balanced commitment to each of the three functions of instruction, research and public service. It is this balanced commitment

that enables the University to disseminate to society the results of its scientific, cultural and professional inquiries. Research is defined as an inseparable component of the teaching-learning process. In 1987, sponsored programs funding totaled $48 million, growing to $53.3 million in 1988 and to over $60 million in 1989. Patient care, an important segment of the medical teaching-learning process, provides a service role model for comprehensive health care at the Medical College of Virginia campus, which is the fourth largest health sciences complex in the nation. Similarly, other institutional service functions seek to identify and evaluate societal needs and to provide the appropriate response to satisfy these needs.

The Institution's Future Directions

Virginia Commonwealth University's future is directly related to the evolving needs of its service area and the attractiveness of its program offerings. Future modifications in program emphasis must accommodate the needs of the society of which it is a part. The concept of instruction, research and public service as interdependent components of a total system is crucial if the University is to provide the leadership to address critical societal problems. In response to society's needs, the University expects to enhance its research and graduate programs, broaden the opportunities for the adult learner, and strengthen the relevancy and quality of its undergraduate professional curricula.

Student Assessment

Beginning in 1987, VCU embarked on a comprehensive program to describe its students' characteristics, their academic performance, the

quality of their educational experiences in general education and in their majors, and their plans for professional and educational development after graduation. VCU's strategy has been to use existing records and to draw on the expertise of faculty to review available tests and to design assessment measures that will capture both the excellence and the diversity of the VCU undergraduate experience.

The VCU Student Assessment Plan covers the following six areas:

(1) annual profiles of entering students and graduating seniors;

(2) rates of retention;

(3) assessment of general education;

(4) assessment of major fields;

(5) evaluation of remedial programs;

(6) follow-up studies of alumni; and

(7) follow-up studies of Virginia Community College transfer students.

Assessment Activities Implemented in 1988-90

The following assessment activities comprise most of the program during the 1988-89 and 1989-90 academic years:

- profile of VCU baccalaureate graduates (1986, 1987, 1988);

- ACT Entering Student Survey of first-time freshmen in 1988 and 1989;

- entering-student assessment program in 1988 for general education areas of science, social science, values, and cultural diversity;

- entering-student assessment program in 1989, including the ETS Academic Profile and a locally developed writing sample;

- retention survey of entering classes of 1985, 1986, 1987, 1988;

- pilot assessment projects in Schools of Business, Nursing, and Social Work, and the Departments of Biology, Chemistry, Foreign Languages, Justice and Risk Administration, Psychology, Sculpture, and Urban Studies and Planning;

- follow-up study of remedial students from the entering class of 1986;

- evaluation study of mathematics placement test and the modes of instruction in the first course in mathematics;

- graduation survey from the College of Humanities and Sciences and the School of Business; and

- one-year follow-up studies of the academic performance of students who transferred to VCU from Virginia community colleges in 1987 and 1988.

Assessment Results and Institutional Responses

Retention and Student Profile Studies—Since 1985, each successive freshman cohort has demonstrated a slight increase in retention rate: slightly more than one percent more of the 1986 freshmen remained at VCU after one year than in the 1985 class. Comparing the same two groups after their second year in attendance showed an increase of two and a half percent in sophomore-year retention. The same trend is apparent in the 1987 cohort. Some of the possible reasons may be the higher academic caliber of each class and the programmatic efforts made by the university to improve the freshman-year experience and undergraduate learning. New programs in student orientation, academic and career advising, an elective freshman seminar, and an Office of Academic Support Services were initiated in the last two years. However, the four-year retention rate remains lower than the institution hopes to achieve. Although this rate is consistent with other urban universities with a heterogeneous group of students and programs, further study of the attrition rates of sub-groups of the undergraduate population are necessary to inform continued program and student development.

The baccalaureate profile for the past three years shows that of the approximately 2,000 undergraduate students who receive their degree from VCU every year, over 60 percent are women, 16 percent are from a minority group, and over 30 percent are over 26 years of age. The demographic characteristics of our graduates, especially the older students, and the numbers of minority students affirm our mission as an urban institution committed to serving a broad spectrum of Virginians. The overall academic performance of these graduates is normally distributed across four GPA levels. Although this distribution is normal across all students, it is interesting to note that for those students who were 31 years or older when they graduated, 33 percent had GPA's of 3.5 to 4.0. These profiles coincide with the conventional wisdom of our faculty about the achieving older student and the distribution of grades.

General Education

Pilot assessment projects were completed, using measures that included nationally developed tests as well as locally developed instruments in social science, science, values, and cultural diversity. The faculty-developed measures were administered to seniors and to the entering freshman class in 1988; the seniors also took the ETS Academic Profile. The results indicated that seniors did best in areas where there has been a concerted effort to improve the quality of learning (e.g. VCU writing-across-the-curriculum programs). They did less well in mathematics. There are few to no differences in senior students' scores based on gender, major field, or transfer status, despite a diversity of programs and student body at VCU. Both seniors and freshmen were strongest in their knowledge of biology and weakest in chemistry; freshmen scored lowest in economics and psychology while seniors scored highest in these two areas. High-school and college coursework, therefore, seem to have an effect on student knowledge in these areas. Freshmen placed a higher emphasis on social values, creating works of art, and developing a philosophy of life than their peers nationally on similar items about student values. On the cultural diversity survey, freshman scores were "moderately sensitive" but indicated that students are better able to deal with these issues in the abstract than in the concrete.

Follow-up studies, using transcript analyses and tests for the science and social science areas and focus-group interviews for the values and cultural diversity areas, are planned to further evaluate the contributions VCU makes to its students' general education. In 1989, the ETS Academic Profile and a writing sample were administered to entering freshmen to begin longitudinal studies of student proficiency levels in reading and writing.

Pilot Assessment Projects in Major Fields

Consistent with the approach used to assess general education, VCU initiated pilot assessment projects in three schools and seven departments during the 1988-1989 period. Faculty in all of these units followed a set of guidelines developed by the Office of the Provost and Vice President for Academic Affairs, including review of existing assessment and evaluation procedures, identification of common outcomes for the major, review of available national examinations, and development of local measures. In the next academic year the departments will collect and analyze data, interpret results, and make recommendations for curricular change. Additional departments will begin the process of assessment of the major.

Multiple measures and strategies are being used by the different major field units. For example, nationally developed and normed knowledge examinations were chosen by three departments. Biology and Psychology will administer the ETS Major Field Achievement Test to graduating seniors in 1989-1990. Chemistry will use standard examinations developed by the American Chemical Society to compare the performance of its students and faculty course objectives to a national sample of majors and departments.

Because of the small number of majors and their close working relationships, faculty in Foreign Languages and Urban Studies and Planning are planning to embed their assessment in existing courses as well as in a capstone, senior-year course. Externally developed examinations will be used to validate the faculty evaluations of the work achieved by the aggregate of individual students.

In both the School of Social Work and the Department of Sculpture, there already exist mechanisms for evaluation and feedback. They are administered in a sequence of courses, practica, and field-work experiences in social work and in class critiques, juried exhibitions, and a "senior show" in sculpture. Small class size and close relationships foster the communication about strengths and weaknesses to students and enable feedback to be accomplished in a direct and periodic fashion. For sculpture, the problem of assessment is one of communicating informal knowledge about students to external audiences in a more formal way. For social work, assessment has called attention to the need to infuse professionally stimulating courses with liberal arts skills such as critical thinking, quantitative reasoning and writing.

The School of Nursing concluded that their most important assessment need was not the collection and analysis of data on their students; the faculty routinely review results from national and state credentialling examinations and accreditation reviews. They needed to develop ways to make more effective use of assessment data for empirically based curricular changes. National shifts in professional thinking about the nursing baccalaureate became the primary focus of summer institutes and external consultations on the uses of assessment data for program development.

A locally developed test of knowledge was piloted by the Department of Justice and Risk Administration with its freshman and senior majors in order to begin measuring longitudinal change. In contrast, the School of Business will use a senior exit evaluation, drawing on measures developed by the American Assembly of Collegiate Schools of Business and the Educational Testing Service and on local tests designed by business faculty.

The School of Business project was designed in the same way as the original VCU general-education assessment project. Course syllabi and faculty interactions were used to generate common outcomes, and assessment measures were reviewed for their ability to provide information on the quality of undergraduate learning on these outcomes. The results generated by the measures will be used to both stimulate questions about the curriculum as well as to refine faculty expectations about the skills and knowledge that they expect all business students to have. The emphasis will be on the knowledge and skills employers who hire a baccalaureate recipient in business from VCU can expect.

Evaluation of Remedial Programs

As part of its mission to provide access to many students whose prior academic experiences have not been comparable to the regularly admitted VCU undergraduate, the institution offers remedial programs in English and mathematics. Because of the increase in the overall caliber of students admitted in the past three years, faculty in both departments have begun to re-evaluate what defines a "remedial" course.

Currently, the English Department relies on the Test of Standard Written English (TSWE) and a complementary writing sample to evaluate students' writing skills at entry. As part of a longitudinal study begun in 1989, entering students will continue to report TSWE scores. A writing sample was also administered and scored by faculty, proficiency levels on college-level writing were obtained from the ETS Academic Profile, and transcript analyses of freshman composition course grades were completed.

Initial follow-up studies of students who successfully completed a remedial course in mathematics in the fall semester of 1986 indicated that their retention rates were initially higher than that of the non-remedial population. After five semesters the retention rate of students who began at VCU by taking a remedial mathematics course was exactly the same as those who began in a regular first course. The Department of Mathematics is using these data, as well as a study evaluating instructional effectiveness in College Algebra courses, to revise the placement test and to redesign the first course in this subject area.

Graduation Survey

A common graduation survey was sent to approximately 1,000 seniors in the College of Humanities and Sciences and the School of Business. The responses from 748 students (74 percent return rate) revealed major and expected differences between the two groups of students. Twenty-three percent of the humanities and sciences students reported plans to continue their education full-time, compared to six percent of the business graduates. In contrast, 33 percent of the business students reported continuing in their current job full time, versus 18 percent of the humanities and sciences group. Approximately 13 percent of both groups reported plans to continue their education on a part-time basis. This pilot project served the dual purposes of developing an effective common senior survey that can be used by all schools in the future and laying the groundwork for a graduating seniors database.

Virginia Commonwealth University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	16,709	16,253	15,553	15,603	15,411
Fall Enrollment	21,391	20,645	20,485	19,641	19,861	19,754
First-Time Freshmen Enrolled	1,728	1,840	1,945	1,806	1,810	1,675
First-Time Transfers Enrolled	1,625	1,403	1,424	1,371	1,451	1,489
Associate's Degrees Awarded	—	10	3	14	6	19
Bachelor's Degrees Awarded	—	2,003	1,956	1,926	1,878	1,965
Master's Degrees Awarded	—	836	747	706	679	725
Doctor's Degrees Awarded	—	89	105	80	90	76
First Professional Degrees Awarded	—	241	259	231	264	264

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus
For Fall 1989 - 21,391

Male	41.0%
Female	59.0%
In-State	90.0%
Out-of-State	10.0%
Full-Time	62.7%
Part-Time	37.3%
On-Campus	95.3%
Off-Campus	4.7%
Black	13.6%
White	80.6%
Other Races	5.8%
21 and Under	34.6%
Over 21	65.4%

Most Popular Bachelor's Degrees
1984-85 to 1988-89*

Business and Management	387
Health Sciences	266
Visual and Performing Arts	247
Education	149
Allied Health	117
Computer and Information Sciences	96
Communications	96

*average per year

Course Distribution 1988-89*
(Percentage of Instructional Effort)

Fine and Applied Arts	14.6%
Business and Management	13.8%
Health Professions	10.9%
Letters (English, Literature)	10.1%
Social Sciences	10.1%
Biological Sciences	7.5%
Public Affairs and Services	6.2%
Education	6.1%
Mathematics	4.8%
Psychology	4.7%
Physical Sciences	3.9%
Foreign Languages	2.9%

1989 First-Time Freshmen Admissions

Applied	5,924
Accepted	3,651
Enrolled	1,728
Acceptance Rate	61.6%
Enrollment Rate	47.3%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$11,504,278	$55,408,579	20.76
1986-87	$37,557,684	$179,451,325	20.93

All figures as of January 16, 1990
*On-Campus only

Virginia Community College System

The impetus for the establishment of the statewide system of community colleges in Virginia was a desire on the part of the Commonwealth to expand the educational opportunities available for citizens beyond high school. In the early 1960s, educational opportunities within the state were limited, because higher education programs were not available in some regions. In addition, the state was unable to meet the demand of new industries for skilled workers. The General Assembly, aware of these needs, established the Commission on Vocational and Technical Education in 1962. In 1964 the State Board of Technical Education and the Department of Technical Education were established to administer vocational and technical schools. Also in 1964, the Assembly appointed the Virginia Higher Education Study Commission with a mandate to examine the possible establishment of community colleges to fill a gap in Virginia's system of higher education.

In 1966, legislation created a Department of Community Colleges and a State Board for Community Colleges. The legislation provided for the creation and maintenance of a statewide system of comprehensive community colleges—the Virginia Community College System—with the State Board for Community Colleges responsible for the establishment and administration of all the community colleges within the system. In addition, local Community College Boards were established to act in an advisory capacity to the State Board. Several technical schools and university branches which existed in 1966, along

with the addition of a number of new colleges, form the System which now exists. Each of the 23 community colleges located throughout Virginia serves a designated geographic region.

In 1977, the General Assembly passed a resolution changing the role of the State Board for Community Colleges from a board of a state agency to a governing board of a statewide institution of higher education.

The mission of the Virginia Community College System is to assure, as part of the statewide education community, that all individuals who can benefit through the development and extension of their skills and knowledge will be able to do so. To accomplish this mission, the VCCS provides quality programs and services that are financially and geographically accessible.

The 23 individual colleges are comprehensive, offering freshman and sophomore courses in the arts and sciences which may be acceptable for transfer to baccalaureate degree programs; diversified technical curricula including programs leading to the associate degree; occupational and technical education leading directly to employment; and courses in general and continuing education for adults. The principal emphasis of the System is occupational-technical education. Transfer, developmental, continuing education, and community service programs are integral parts of the mission. These programs and offerings are supported by student development services.

In addition, the VCCS responds to community needs by providing trained individuals for industry, business, professions, government and other educational institutions. In many instances, the colleges are playing a major role in the economic development of their communities.

In the Fall 1988 semester, the VCCS enrolled 115,192 students.

Seventy-two percent of the community college students in Fall 1988 were enrolled part-time. In Fall 1988, 44 percent of the students attending community colleges were under 25 years old, 30 percent were between 25 and 34 years old, 17 percent were between 35 and 44, and nine percent were age 45 and above. About 59 percent of the students were female, and 12 percent of the students were black. Many students attend community colleges to prepare for entry into baccalaureate degree programs or to seek job training. Significant numbers of students enroll initially as non-curricular students. Their goals are varied, but the majority attend community colleges to upgrade skills for a present job, to develop skills for a new job, or to explore careers; many also attend to gain general knowledge, as well as cultural and personal enrichment.

Transfer agreements with four-year institutions promote the successful transfer of students from the two-year colleges.

Purpose of the Institution

The purpose of the Virginia Community College System is to provide all citizens in the Commonwealth access to postsecondary educational opportunities within commuting distance of their home or work and at a cost most can afford. The modified open-door admissions policy ensures that all citizens who can benefit from programs and services provided by the colleges will have the opportunity to do so.

Each community college participates, along with the senior colleges and universities, in one of six regional continuing education consortia. The consortia are committed to providing continuing education opportunities and public service activities which meet the needs and interests of citizens in each region of the Commonwealth.

The continuing education and community service programs offered by the community colleges are varied. The continuing education programs include credit offerings, located in both on- and off-campus facilities, which may be used for general educational improvement and which may meet the needs of such specific career groups as legal secretaries or bank employees. The off-campus courses enable the college to extend educational opportunities to local communities. Non-credit courses and seminars, which are self-supporting, provide learning experiences which are not available in traditional credit programs. College facilities and personnel are available to citizens of the service region for special events. In addition, community service programs are offered by the colleges throughout the year. These programs are intended to provide educational and cultural opportunities for area residents. Art exhibits, lectures, workshops, conferences, festivals and fairs are examples of the numerous community service programs offered at community colleges.

Extent of the Institution's Mix of Instruction, Research and Public Service

Quality instruction at a reasonable cost and public service programs that meet the educational needs of the localities served are emphasized over research at community colleges. Nineteen programs which lead to Associate in Arts, Associate in Science, or Associate in Arts and Sciences degrees are offered as college transfer programs. Approximately 220 occupational-technical programs lead to the Associate in Applied Science degree or to certificates and diplomas. The occupational-technical programs include the following major curricular areas: agricultural and natural resource technology, arts and design technology, business technology, engineering/industrial technology,

health technology, and public service technology.

Community service programs are specifically designed to meet the educational and cultural needs of the local community. Basic emergency medical technician courses, real estate examinations, seminars for women, health fairs, energy conservation seminars, English as a second language, and communication with the deaf are examples of only a few of the various community service programs offered statewide by the community colleges.

The System's Future Directions

The growth and development of the Community College System since its inception in 1966 has enabled Virginia to make great strides toward increasing access to educational opportunities for citizens throughout the state. At the same time, the System has served the economic development of the state by training or retraining students who aid the state's economy by taking or returning to jobs in their local communities.

The Virginia Community College System will continue, within the scope of its mission, to provide access to citizens throughout Virginia to the educational opportunities that best meet their needs. The System expects to continue serving a diverse student body and expects that the enrollment of adults, women, and minorities will increase.

Programs and services will vary to meet the different educational needs of students attending community colleges. To keep abreast of the statewide workforce needs of business, industry, government, and the professions, colleges will continue to modify, add, or delete the occupational-technical programs now offered. The demand for instruction at locations throughout the service regions of the colleges will increase and community colleges will strive to make more effective use of community resources.

Student Assessment

Since their assessment plans were approved by the State Council of Higher Education in 1987, college faculty and staff have actively worked on several projects to implement them. During the past year, the following major areas have received the most emphasis: general education, developmental programs, assessment in majors, and transfer agreements with four-year institutions.

To initiate assessment of general education, the colleges have established objectives and begun testing procedures to measure the attainment of these objectives. Some colleges have developed their own in-house tests, while others have administered nationally normed tests for general education developed by the American College Testing Program and the Educational Testing Service. Developmental programs have been reviewed and standards revised to meet recommendations of the SCHEV/VCCS Joint Task Force on Remediation. To ensure that developmental students are successful in regular college courses, colleges have also initiated systems to track and monitor students so that they can ascertain whether or not students reach their academic goals. A variety of methods to assess the progress of students in program majors have been developed; efforts this year have focused on programs in Allied Health Sciences, Engineering/Electronics, and Business. The most important information for assessing student outcomes in majors has come from licensure and certification exams and from a variety of surveys of students, graduates, faculty, employers, and program advisory committee members. To ensure that the colleges obtain data on the performance of transfer students, 75 separate agreements were established between the colleges and four-year institutions. The forms of these agreements were unique to each institution, but they will ensure that information is available to assess and improve transfer programs and to evaluate the achievement of community college students at four-year institutions.

General Education

Throughout 1988-89, each of the Virginia community colleges worked to implement the general education component of its student assessment plan. The college Assessment Reports documented that general education assessment tasks have been completed by individual colleges at one of three stages of development:

(1) A college has defined general education outcomes (goals and objectives) for all program-placed students. (14 colleges)

(2) In addition to defining outcomes, a college has conducted assessments which actually measure student knowledge of general education. (5 colleges)

(3) A college is well on the way to putting in place a model set of general education procedures which provide students with reports on their progress in achieving general education outcomes and which yield results that can be used by college faculty and staff to evaluate curricula and instructional methods. (4 colleges)

Another development in the assessment of general education involved college experimentation with student testing. Those colleges which made the decision to initiate student testing procedures in 1988-89 also had to decide whether or not to use tests purchased from a professional testing service, a locally developed test, or both kinds. Sixteen of the colleges administered professionally developed general education tests to groups of students numbering more than 3,000. Four colleges have worked to prepare locally developed tests, and two of the colleges piloted their tests, administering them to sample populations of about 560 students. Colleges are reviewing the results of their pilot testing projects with the aim of validating tests and performing analyses to identify probable implications for student counseling, teaching methods, and changes in the curriculum.

Assessment in the Majors

The colleges which have made good progress with assessing student outcomes in the academic majors have all approached the assessment process by first establishing a clearly defined set of measureable outcomes appropriate to the major and then developing methods to determine whether or not students achieved the outcomes. Methods to measure the achievement of outcomes have been varied. Many faculty have developed their own tests and are in the process of field-testing them. Others are evaluating the usefulness of less traditional evaluative techniques such as capstone courses and portfolio analyses. To add objectivity to the evaluative process, some colleges have used program advisory committee members and licensed professionals external to the institution to evaluate student projects and to complement other indicators of student progress. Most colleges have shown a willingness to invest the time required to match the assessment process with the unique characteristics of programs and students.

Twenty-three of the colleges evaluated at least two majors in the occupational-technical program cluster. The greatest number of majors examined were Associate in Applied Science, Certificate, and Diploma programs in the Allied Health Sciences. Eighteen community colleges defined assessment methods for programs such as Medical Laboratory Technology, Medical Records Technology, Radiography, Respiratory Therapy, Nursing, and Dental Hygiene. Eight colleges evaluated outcomes in electronics/engineering; seven assessed student outcomes in office systems technology; and three reported assessment activities in business management technology. Other majors assessed were administration of justice, horticulture, drafting and design, hotel/restaurant/institutional management, child care, accounting, marketing, funeral services, community and social services, welding, and computer information systems.

All colleges evaluating majors in Allied Health Science programs reported results from the national or state certification or licensure exam for a particular area. These exams are important indicators of student achievement because they are externally validated tests that are normed on a national or state basis and they reflect accreditation standards of national associations such as the National League for Nursing. In nursing programs, for example, the colleges use the percentage of students who pass the exams as a standard. Most colleges compared the passing rates of their students with those of other nursing program graduates statewide, at other community colleges, and with comparable students nationwide. Several colleges noted that the passing rates—which were high, typically between 90 percent to 100 percent, for most colleges prior to 1988—decreased in 1988 when the exam changed. They also reported that nursing faculty were currently making changes in the curriculum to strengthen student preparation for the exam.

While the pass rates on certification and licensure exams tend to be one focal point for assessment in the Allied Health Science majors, they are not the exclusive measure used to evaluate student success. Colleges supplemented the exam results with information from basic skills testing, interviews with program heads, student/faculty conferences at regular intervals, laboratory competency evaluations, tests that predict success on board exams, and clinical simulation exams. A majority of the colleges also administer surveys designed to obtain information that will help form a complete, accurate, and dependable picture of student progress in the major. The populations surveyed included current students, graduates, employers, faculty, program advisory committee members, and non-returning students. Many colleges indicated that the majority of the graduates' objectives had been met and that they were satisfied and challenged by the program. Employers generally noted that student performance on the job is equal to or better than graduates of similar programs at different institutions. Job skills and preparation for employment were ranked high by students, and high proportions of graduates are employed.

Important information concerning improvements that could be made to the instructional process came from surveys. One nursing program will add another course in the humanities and social sciences as well as a course in critical thinking. Several Allied Health program faculty are exploring ways to include more writing assignments and oral presentations in the curriculum to respond to comments from employers. Other faculty are reviewing the course content of English composition courses to respond to weaknesses in graduates' ability to write.

To assess student outcomes in majors other than in the Allied Health Sciences, colleges have relied primarily upon tests developed by faculty; capstone courses or projects; and a limited number of surveys of students, graduates, employers, faculty, and advisory committee members. These techniques have led colleges to identify some weak areas in student performance. Students preparing independent reports for a capstone project, for example, were cited by one college as needing to improve their research skills and their ability to make connections between issues across disciplines. Based upon this finding, the college is in the process of making curricular changes to reinforce these skills. Other reports indicated that faculty would develop a separate business writing course and that greater emphasis would be placed upon vocabulary and proofreading in regular courses. Because students did not achieve at the level anticipated by faculty at another college, the faculty are developing a technology refresher course for students who take a period of time longer than usual to finish their programs.

Developmental Education

In the 1988 report of the SCHEV/VCCS Joint Task Force on Remediation, the role of the community colleges in developmental education was well defined. This year twenty-three colleges began or continued an examination of placement tests and procedures to ensure that they were congruent with the minimum standards set by the Task Force for college-level performance in reading, writing, and mathematics. Twenty-two schools used nationally developed standard tests, such as the Nelson Denny Reading Test and the Descriptive Test for Math Skills; in addition, six colleges supplemented these with tests developed at the college or tests developed at another Virginia community college. By fall 1990, reliable pre and post testing will be in place at all colleges in order to measure the amount of change effected during the developmental courses.

Traditionally, the effectiveness of developmental programs is measured by the success of developmental students in college-level courses. Usually, students are tracked for one or more semesters, and their "success" is measured by such criteria as grade-point average and retention compared to non-developmental curricular students. The Task Force on Remediation has recommended that by next year all colleges have in place tracking systems that will allow them to judge the effectiveness of their developmental programs. This year six colleges have already indicated that they have begun to monitor the progress of developmental students in college-level courses. Three of these colleges reported that developmental students did as well as curricular students, two colleges reported that developmental students failed to show much improvement. This college is currently examining its testing procedures and classroom instruction to determine why this seems to be occurring.

In addition to testing and placement procedures and assistance offered in the classroom, college studies demonstrate two things: that developmental students have similar problems and that they need special assistance beyond that offered to regular curricular students. Several of the colleges, with the assistance of "Funds for Excellence" grants from the State Council, have begun developing programs designed to identify and assist "high-risk" students such as those identified as being disadvantaged and those needing "English as a Second Language."

Transfer Agreements Between Two-Year and Four-Year Institutions

The Council of Higher Education initiated the exchange of information on students that transfer from two-year to four-year institutions by requesting that representatives from community colleges and senior colleges meet to discuss existing data collection methods. Institutional representatives reviewed and revised methods for exchanging information on grade-point averages, retention rates, and program placements. This information is important to the assessment process at community colleges because it is the major indicator of how effective the colleges have been in preparing students for baccalaureate level work. During the past year the colleges established 75 agreements with senior institutions, and many were successful in obtaining data. However, many of the colleges noted problems with data exchange. Some four-year institutions were reluctant to provide community colleges with information specific enough to conduct academic program evaluation. In some instances, community colleges were deprived of data relating to the preponderance of their transfers. Obviously, this is a problem requiring attention.

Virginia Military Institute

The Virginia Military Institute was founded in 1839 as the nation's first state military college; it is now the last classic military college in the nation. Today, VMI's demanding academic program reflects the established needs and the emerging trends of a constantly changing society.

VMI cadets constitute a military corps, with the Governor as commander-in-chief. VMI offers a unique learning environment, the product of 150 years of educating citizen-soldiers, young men prepared for leadership roles in society and for military leadership in time of national need.

VMI is a fully accredited, state-supported four-year undergraduate military college for men. Fifty-five percent of the cadets are residents of the Commonwealth, and all Virginia applicants who are academically and physically qualified are accepted for admission.

Academic majors at VMI lead to a Bachelor of Arts or Bachelor of Science degree in the general fields of engineering, liberal arts, and science. In addition, all cadets must complete Reserve Officers Training Corps programs established and maintained by the U.S. Department of Defense. Graduates who have successfully completed the ROTC requirements and are offered an armed forces commission by one of the services are encouraged to accept that commission, which carries with it an obligation for various combinations of active and reserve duty. In order to gain an awareness of the global nature of society, cadets are encouraged to study abroad for short periods during their cadetship.

Purpose of the Institution

The primary purpose of Virginia Military Institute is the thorough education of young men within a framework of military discipline. It is a purpose unchanged from that set by the founders, who said: "The military feature, though essential to its discipline, is not primary in the Institute's scheme of education."

The Virginia Military Institute combines an intellectually enriching program of college studies with the character-building experience of cadet life. The college emphasizes the intellectual, personal, physical, and leadership development of its students, and its goal is to produce graduates who are prepared and motivated to seek positions of leadership in civilian careers, in the military, and as citizens.

All VMI cadets live in the barracks, eat together in the mess hall, and wear the historic gray cadet uniform. A cadet's daily life is regulated by traditions and rules of the Institute, and his conduct and activities are measured against high standards set by his fellow cadets. Undergirding all of this, in and out of the barracks and classroom, is the cadet Honor Code, to which all cadets subscribe.

VMI's many-faceted program is demanding, but it is a program that has provided generations of cadets with benefits they have carried with them throughout their lives. Cadet life is designed to instill in each cadet the lifelong practice of integrity, devotion to duty, self-discipline, and self-reliance. Because cadets live and work in close association with fellow cadets, respect for the rights of others becomes their way of life, as do the strong bonds of loyalty that survive the moment of graduation.

Virginia Military Institute encourages applications from qualified male Virginia high-school graduates

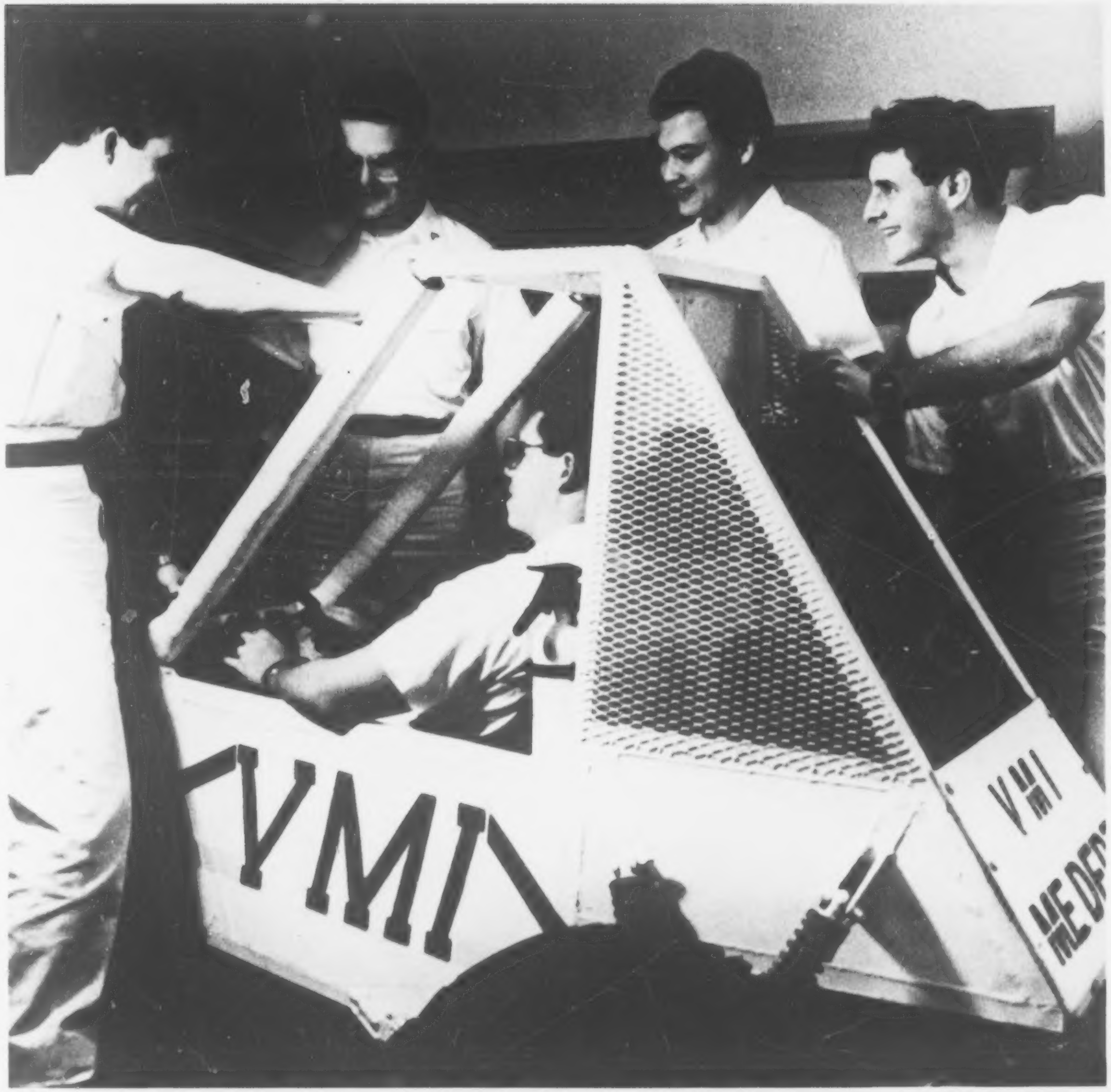
as well as from young men throughout the other 49 states and the U.S. territories. Qualified foreign male students are accepted.

Extent of the Institution's Mix of Instruction, Research and Public Service

VMI gives academic instruction at the undergraduate level in 15 degree programs in economics and business, English and fine arts, history and politics, international studies, modern languages, mathematics, biology, chemistry, computer science, physics and astronomy, civil engineering, electrical engineering and mechanical engineering. All cadets must choose an officer training program associated with the Army, Navy, Marine Corps, or Air Force ROTC. Successful completion of the VMI program enables graduates to enter many civilian professions or the armed forces, or to continue their education at graduate, medical and other professional schools.

The VMI Research Laboratories is the research arm of VMI for administering grants and contracts. At the end of the most recent fiscal year, the value of contracts in force was $350,000. About ten percent of the faculty plus a number of cadets are involved in studies sponsored by state, federal and private grants.

As part of its public-service commitment, VMI provides many academic, athletic, recreational, and physical-training programs and facilities to the community. Through its continuing education program, all who are qualified are offered the opportunity to take courses for credit in the summer session and in the Evening College. Non-credit short-term courses and seminars are held annually for specific interest groups. Numerous cultural programs give support to VMI's academic efforts and, because they are open to the public, add substantially to the Institute's commu-



nity service. Faculty and staff members serve on many state boards, community boards and committees.

The Institution's Future Directions

The Institute faces the future with a renewed dedication to undergraduate education in general and to the study of the sciences and engineering in particular. The Institute will continue to develop its broad range of academic offerings to meet the needs of society and to reflect advances in current research and scholarship.

Student Assessment

VMI approaches assessment on the assumption that the individual student should be the beneficiary of all formative evaluation. After the first year, all target groups of students were included in test administrations, rather than samples. All assessment data are delivered expeditiously to concerned advisors, counselors, and faculty to assure immediate use for the cadets' well-being. Furthermore, every effort is made to insure the practical as well as the statistical value of all data. The use of standardized tests was encouraged in pilot efforts at cognitive assessment to provide a baseline upon which to develop tailored in-house instruments.

Assessment in general studies focused on two initiatives: the administration at key transition points of the Academic Profile published by the Educational Testing Service (ETS) and the work of a General Studies Committee appointed early in 1989 to review and evaluate the general-studies curriculum at the Institute. The Academic Profile was used to measure an array of general-studies skills. The results of a test-retest of the class of 1991 were encouraging. Significant gains were shown in nearly every area covered by the test in students from the liberal arts and the natural sciences. Engineering students showed little gain, but little was anticipated because of the curricular burdens of a four-year ABET-approved engineering program which affords the engineering student few opportunities to take general studies courses beyond the freshman year. Addressing this problem is a central task of the General Studies Committee. The Committee's charge is to evaluate all core-curricular courses against an established matrix of general-studies competencies supported by the Long Range Academic Plan. The Committee will also evaluate the Academic Profile for its applicability to VMI. Upon completion of these tasks, the committee will solicit the assistance of all faculty teaching general-studies courses regarding possible modifications in the curriculum as well as the selection or development of an appropriate assessment instrument for general studies.

Assessment in the major included data from six of eleven major departments at the Institute which have engaged in assessment efforts over the past two years: the Departments of Modern Languages, Chemistry, History, Physics, English, and Civil Engineering. All eleven departments will have functioning assessment programs in place by the end of 1989-90. Some departments have special assessment problems, depending upon the ratio of their service load to number of majors, so they are designing a dual approach, assessing their service loads at appropriate transition points as well as their graduating seniors. Four departments—Civil Engineering, Physics and Astronomy, History and Politics, and English and Fine Arts—administered the newly created Major Field Achievement Test published by ETS to their graduating seniors. Students in all four departments scored very close to the national average except for the students in the Department of History, who scored well above the national average on the European History subtest, raising their overall scores to a statistically superior performance.

The Departments of Chemistry and Modern Languages launched successful assessment programs during 1987-88, and their efforts have become important resources for other departments with heavy service loads. Both of these departments graduate very few majors but offer courses required by all students at the Institute. All freshmen must take a two-semester sequence in general chemistry with a laboratory, and all but the three engineering majors require at least four semesters of a foreign language. Consequently, both departments selected specialized instruments to measure the progress of both extra-departmental students as well as their majors. Chemistry administered the General Chemistry Examination of the National Chemical Society at matriculation, then again at the end of the freshmen year, and students showed a significant gain in their performance when retested after the freshman sequence. Graduating seniors in chemistry took the Inorganic Chemistry Examination of the National Chemical Society. Even an aggregate of two graduating classes provided a sample too small to use for comparisons with national norms, but the chemistry faculty were pleased with the results.

The Modern Language Department administered the Modern Language Association Examinations in French, Spanish, and German at matriculation, again at the conclusion of the 200-level sequence, and at graduation for the majors. Gains in all languages were significant at all levels.

The Department of Physical Education kept record of all physical-fitness tests for all students.

Students must meet VMI physical-development requirements, and those who do not are enrolled in Remedial Fitness Training. The Physical Education Department reported a greater than 95 percent success rate for physical-development requirements.

Following a pilot administration of the College Student Experiences Questionnaire in the spring of 1988, an alumni survey and a graduating senior survey were designed for use at VMI. All members of the class of 1989 and 329 alumni from the class of 1984, 1979, 1974, 1969, and 1964 responded to the survey. Graduates showed a keen interest in the future of their alma mater and generally rated their undergraduate institution very highly in the areas of academic department, services, career preparation, personal development, and peer relationships. They did, however, report one important shortcoming. Alumni of all classes indicated that they received neither the encouragement nor adequate opportunities to study or participate in any of the fine arts. Plans are already being made to redress this shortcoming.

Assessment efforts have been made to identify "high-risk" students for immediate intervention by academic and personal advisors and for the broadening of available intervention strategies and programs for the range of problems identified. Typical measures such as SAT and other achievement test scores, placement test scores, and the Academic Profile—as well as instruments such as the Myers-Briggs Type Indicator, Rotter's Locus of Control, and an Entering Student Efficacy Scale— are used to identify "high-risk" students. Profiles from these instruments are used immediately in the counseling process to match the student with a range of ongoing intervention programs. Many of the results from the assessment program suggest the need for new early-intervention programs, which are currently being developed. Recently, summer tutorial programs for minority students were made available, and, in the near future, students will be provided a variety of special-needs programs through a Learning Resources Center now being created.

Assessment of affective development has been an important element of the overall assessment program. Many of the instruments used for identifying students with special needs have also been used to reflect the changing profiles of students, and others will be used in the next phase of this aspect of assessment. In addition, an electronic profile system is being developed jointly with ETS as a sophisticated method of tracking the development of the whole student. The electronic profile will contain qualitative as well as quantitative assessment information. VMI has renewed its commitment to the development of leaders in all fields of endeavor, and that commitment will soon be reflected in all aspects of the VMI experience. The development and use of assessment instruments, the use of qualitative and quantitative data in the electronic profile, and a new leadership development program offer fresh and exciting challenges for the Institute.

Virginia Military Institute - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	1,553	1,577	1,599	1,564	1,641
Fall Enrollment	1,312	1,285	1,310	1,304	1,273	1,338
First-Time Freshmen Enrolled	361	300	368	409	321	404
First-Time Transfers Enrolled	39	21	11	15	32	24
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	260	285	242	286	312
Master's Degrees Awarded	—	0	0	0	0	0
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 1,312

Male	100.0%
Female	0.0%
In-State	55.0%
Out-of-State	45.0%
Full-Time	100.0%
Part-Time	0.0%
On-Campus	100.0%
Off-Campus	0.0%
Black	6.4%
White	86.9%
Other Races	6.7%
21 and Under	88.9%
Over 21	11.1%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Engineering	116
Social Sciences	101
Letters (English, Literature)	21
Life Sciences	17
Physical Sciences	12
Foreign Languages	6
Mathematics	4

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Social Sciences	22.7%
Engineering	14.6%
Physical Sciences	12.4%
Letters (English, Literature)	10.5%
Mathematics	9.4%
Military Sciences	8.5%
Foreign Languages	7.8%
Education	3.5%
Psychology	2.7%
Business and Management	2.3%
Computer and Information Sciences	2.3%
Biological Sciences	2.1%

1989 First-Time Freshmen Admissions

Applied	994
Accepted	668
Enrolled	361
Acceptance Rate	67.2%
Enrollment Rate	54.0%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$70,283	$2,863,488	2.45
1986-87	$261,734	$4,652,522	5.63

All figures as of January 16, 1990

*On-Campus only

Virginia Polytechnic Institute and State University

Virginia Polytechnic Institute and State University, or Virginia Tech, as the Commonwealth's largest university is commonly known, was founded in 1872 under provisions of the federal Morrill Act. The historic legislation authorized endowment funds from the sale of public lands for the support of a college in each state to teach agriculture and mechanical sciences, as well as other "liberal and practical education." As a land-grant institution, Virginia Tech is committed to fulfilling a three-tiered mission to the state: instruction, research and extension. At the heart of the university's mission is a commitment to serve the changing needs of society. This focus is best reflected in the university's motto: *Ut Prosim*—That I Might Serve.

The 24,926 students enrolled at Virginia Tech (approximately 18,600 undergraduate and 6,700 graduate) make it the largest university in the Commonwealth. While 75.5 percent of the undergraduate students are from Virginia, the university attracts students from all 50 states and 90 foreign countries to its nationally and internationally recognized programs. The university's admission policy gives highest priority to Virginians for its freshman and transfer quotas and provides for programs to attract a high proportion of minority students.

Virginia Tech is committed to expanding its already highly effective program of undergraduate teaching, while building upon its excellence in advanced study and research. On the undergraduate level, instruction is offered in the 67 departments of the seven academic colleges: Agriculture and Life

Sciences, Architecture and Urban Studies, Arts and Sciences, Business, Education, Engineering, and Human Resources. On the graduate level, both master's and doctoral degrees are offered in 70 areas of concentration. In addition, the university offers the doctor of veterinary medicine degree through its Virginia-Maryland Regional College of Veterinary Medicine, with a satellite campus located at the University of Maryland in College Park. In addition to the graduate programs offered at the Blacksburg campus and a number of sites throughout the Commonwealth, Virginia Tech offers graduate engineering and MBA programs, via satellite, to about 30 locations across the state and 10 locations across the country.

Among the major off-campus facilities the university has to offer are nine agricultural stations throughout the state, the Marion duPont Scott Equine Medical Center in Leesburg, the Northern Virginia Graduate Center in Falls Church, the Graduate and Continuing Education Centers in Roanoke and Hampton Roads, the Washington-Alexandria Architecture Center in Alexandria, and WVTF, a 100,000 watt FM public broadcasting station in Roanoke.

Virginia Tech is widely recognized for its strengths in agriculture, engineering, business, and many fields of sciences; these are balanced with comprehensive instruction in non-scientific areas. Undergraduate programs in theater arts management, hotel and restaurant management, and marketing education have been nationally recognized for their exceptional quality. The university offers a full range of degree programs in the liberal arts and sciences and is the residence of the Audobon Quartet, internationally acclaimed for its performances and recordings of classical music for strings.

In cooperation with Virginia State University, the Commonwealth's other land-grant institution, the university operates the Virginia Cooperative Extension Service. With offices is each of the state's counties and most cities, the extension service provides information and assistance for Virginia's citizens, from farm communities to the urban corridors.

Virginia Tech's research programs cut across all disciplines, with particular focus on the advancement of scientific knowledge, and are supported by nearly $90 million in state, federal, corporate and other external funds. The University has the largest number of cooperative ventures with Virginia's Center for Innovative Technology (CIT). Virginia Tech is home to two CIT-funded research institutes, one for power electronics and the other for fiber and electro-optics, and four CIT technology development centers. Two of the seven Commonwealth Centers of Excellence are also located at Virginia Tech.

Drawing on its internationally recognized expertness in research programs, Virginia Tech has established its own research park, the Corporate Research Center. Located on 120 acres adjacent to the main campus and the university airport, the Corporate Research Center provides facilities for companies that wish to develop or expand a research relationship with the university. The center is a vital link in the university's effort to assist in the economic development of Southwest Virginia.

Virginia Tech is among the leaders in the use of personal computers on campus. The College of Engineering, The R.B. Pamplin College of Business, and the Department of Computer Science require entering freshmen to purchase personal computers. With over 15,000 personal computers on campus, together with a recently acquired super-computing capability, Virginia Tech has the most advanced computing facility in Virginia and is among the leaders in the nation.

Purpose of the Institution

The following mission and purpose statement was developed by the faculty and administration and approved by the Board of Visitors:

> Virginia Tech serves the Commonwealth of Virginia, the nation, and the international community by generating and disseminating knowledge in the humanities, arts, social sciences, scientific, and professional disciplines through instruction, research, and extension. The university instills within each member of its community an appreciation of the values and obligations of productive citizenship and the responsibilities of leadership, while promoting personal and intellectual development. Its scholastic programs are accessible to all who demonstrate academic merit to gain entrance.
>
> To achieve this mission as the University moves toward the year 2000, it will identify and build on strengths across the University, forge innovative and mutually productive relationships with industry and government, manage resources efficiently, and establish a clear identity as a forward-thinking, high-quality institution that systematically guides and evaluates its future.

The Institution's Future Directions

The university has anticipated the future with major emphasis on the application of high technology to the learning process on campus and in meeting its mission across the state. With the installation of a $16 million telecommunications system, the university is revitalizing and strengthening its undergraduate programs and extending the institution's excellence in the arts and sciences, including the proposed establishment of graduate programs in humanities and fine arts. With its satellite uplink and data transmission capabilities, Virginia Tech will extend its outreach and continuing-education programs to all sectors of Virginia, with particular emphasis on responding to the economic development needs of the state.

On campus, a major goal of the university will be the improvement of student life. With increased emphasis on strengthening the commitment to teaching, the university will expand its academic advising program and improve and expand the university's 1.5 million volume library, including its 3.6 million-item collection of microforms.

Virginia Tech's major objectives are realized in providing the Commonwealth with high-quality teaching, research and public service programs, as well as in enhancing the economic and cultural development of the state and nation. More attention is also being focused on the university's growing international programs as its educational programs become more global in scope. Virginia Tech will continue to build upon its leadership in higher education, responding to new academic challenges in a creative and forward-looking manner.

Student Assessment

The process for assessing undergraduate student outcomes at Virginia Tech began in the fall of 1987, with full implementation taking place during the 1988-89 academic year. Several components of the process were ongoing projects that were continued. Assessment strategies and measurement instruments for the other components were pilot tested during the 1987-88 academic year; these were refined and implemented during the 1988-89 academic year. In all, there are six components of the Virginia Tech response to the assessment mandate.

University-Wide Assessment

The first component is the annual administration of the 1) senior survey, 2) alumni survey, and 3) entering student survey. On the senior and alumni surveys, the respondents are asked to identify their most important goals for college and the degree to which these goals were attained. Both seniors and alumni indicated that the goals of "improving intellectual skills" and "exploring career options and establishing career goals" were very important and had been achieved. Particularly strong areas of perceived achievement included "critical thinking skills" and the "ability to think logically." On the other hand, the respondents indicated less accomplishment in the areas of "understanding the responsibilities of citizenship" and "appreciation of music, art, drama, and other cultural activities." The respondents also indicated less accomplishment in the areas of the arts and humanities and the social and behavioral sciences. Finally, both seniors and alumni were positive toward their departments and the total university. The vast majority indicated they would choose the same major again and would attend Virginia Tech if they could begin their academic career again.

The purpose of the entering student survey was to determine the goals for college, reasons for attending Virginia Tech, and the skills students hoped to achieve. The results indicate that entering students are particularly concerned with preparing for meaningful careers and with developing intellectual and personal skills that will serve them well in changing times and circumstances. They chose Virginia Tech because of its academic reputation in general and in their chosen major. They have high expectations for stimulating classes and for interacting with faculty who are well-known scholars and researchers as well as good teachers.

Student Data Base

The second component has involved the development of an extensive student data base. This data base has already been used to provide data regarding the course-taking patterns of students in the core curriculum and for reporting to high schools and community colleges.

Assessment of General Education

The short form of the Educational Testing Service's Academic Profile II was given to a representative sample of juniors and seniors in April 1989. The summary data indicate that this sample of Virginia Tech students scored well above average on this test.

In addition to using the Academic Profile II, two pilot projects will be conducted during the 1989-90 academic year. The first will be a writing-across-the-curriculum project which will involve faculty from various departments across the campus. Students in selected courses will respond to generic questions of both scientific and social significance. The responses to these questions will be evaluated in terms of their content as well as the students' ability to interpret, organize and critically analyze the relevant issues raised in the questions and to express themselves in writing. Similar projects will be conducted as part of senior capstone experiences in several departments.

Assessment of High-Risk Students

This component involves two programs: the Summer Transition Program (STP) and the Virginia Tech Academic Success Program (V-TASP). The STP was begun in 1983 and has been refined over the past five years. Evaluation of the 1988 program showed that students were positive about the structure and quality of the program and the opportunity to attend regular classes and earn academic credit. The most positive aspects of the program were seen as the study-skills assessment, the computer-assisted study sessions, and the orientation to the campus. While social networking and basic familiarity with the campus were the greatest benefits of STP, the students agreed that the biggest problem during the first academic term was time management. Problem courses for the students during their first term included especially those in mathematics and sciences.

The V-TASP was implemented in fall 1984. There are positive indications that the University is sincere about retaining high-risk students: resources have been provided and academic policies have been modified to facilitate student retention. There is evidence that the program has had some impact on the retention of high-risk students. When comparing black student retention to white student retention, however, it is apparent that all factors have not been considered. Even though the disparity between the two races has narrowed, the consistently higher academic performance of white students who have entry characteristics significantly lower than black students indicates that a major factor or set of factors has been overlooked.

Assessment of the Quality of Student Life

Two pilot projects were conducted during the 1988-89 academic year, both focused on assessing the quality of student life. The first project was designed to complement the data from the senior survey and involved focused group interviews with seniors. These interviews provided more in-depth information as to why students felt that certain goals are important to an undergraduate education and the extent to which they have attained these goals. Students saw as most important enhancement of intellectual development followed by enhancement of communication and expression skills. When asked to name the goals that were least important overall, the answer most often given was understanding of other cultures and international events, followed by occupational competency.

In the discussion of their intellectual development while at Virginia Tech, students gave suggestions regarding the improvement of specific aspects of certain majors but were in general satisfied with the theoretical bases of knowledge they had been afforded in their fields. They felt that classes with smaller enrollments offered a level of interaction among students and faculty which was more valuable to their academic growth; they felt anonymous in the larger classrooms, but noted that these settings did encourage students to develop initiative in approaching the faculty on their own. The students suggested that greater care be taken to provide consistent learning experiences in different sections of the same course which are taught by different instructors.

Students had mixed feelings about how well the Virginia Tech experience had helped them gain the well-rounded, diversified education they saw to be so important. The core curriculum was given both praise and criticism in its effectiveness; some students felt that under the present system they were too restricted to meet their individual needs for variety of course work, while others felt the system allowed for necessary diversity. There was widespread concern that students are asked to choose a major too early in their academic career. Specific suggestions were offered about how first-year students could gain information regarding opportunities connected with various disciplines (e.g., consultation with older students, presentations during dorm meetings).

The second project was an experimental freshman experience program, called LEAD (Living Experiences for Achievement and Development), which was created to provide an on-going orientation to the University and to promote a greater sense of satisfaction and community for freshmen. Based upon the results of an evaluation of the program, several recommendations were made. While the primary function of the program should continue to be assistance to freshmen adjusting to college life, the experience should be revised to include activities for meeting the ongoing needs of the residents. Additionally, mechanisms for greater student involvement were identified and will be included in planning for next year.

Departmental Assessment

The implementation of the departmental assessment plans began in the Fall of 1987 with the first reports written and submitted in May of 1989. Several departments reported results of standardized tests with national norms (Accounting, Biology, Civil Engineering, Engineering Science and Mechanics); other departments reported results from capstone courses (Geography, Landscape Architecture, and Poultry Science). The remaining department reported plans to begin using standardized tests (Computer Science) or to report results from capstone experiences (Art, and Clothing and Textiles).

Accounting

The Accounting Department used multiple measures in the assessment process: 1) CPA examination, 2) employer survey, 3) senior survey, 4) alumni surveys, and 5) review of course syllabi. The results of the CPA examination indicate that the percentage of graduates from Virginia Tech who pass some or all parts of the examination is higher than the percentage at peer institutions and at other institutions in the Commonwealth. Even though these results are positive, the accounting faculty at Virginia Tech believe that the present and future curriculum in the department will not and should not be driven by content on the CPA exam but upon a reasonable balance of

materials that will prepare students for professional careers in accounting. Data from the various surveys indicated that seniors and alumni are very satisfied with their education and believe they are well prepared for the work place. However, they did indicate that their educational experience could be improved by an increased emphasis on oral and written communication skills and increased opportunities to develop leadership. Additional data from the employer survey indicated that the Virginia Tech Accounting Department was rated very high. Based upon the data from the surveys, however, changes were made in the areas of auditing, taxation and information systems, as well as in the advising process, including the development of a faculty advising handbook. A major concern was raised regarding the retention of black students in accounting. The problem is not unique to accounting; however, the department is taking positive steps to alleviate it, including the use of peers as tutors.

Art

The Art Department plans multiple strategies for measuring the creative and intellectual growth of its majors in the studio option by maintaining a record of studio work and art history papers produced by students during the first year in the program and comparing it with studio and written work produced during the third or fourth years of the program. During 1988-89, samples of studio work produced by members of the class of 1992 were recorded on slides or photographs. Term papers for this same group were also collected. During 1987-88 only studio work for the class of 1991 was recorded. Follow-up portfolios will be collected for both classes and reviewed by the department faculty. The major problem confronting the Art Department in developing a workable assessment plan has been that in the past the majority of students decide to major in the department later in the undergraduate program or transfer to it. Thus, the collection of work done in early stages of the program has been difficult. New requirements stipulating that those students submit a portfolio before declaring the major may help to solve the problem.

Biology

The Biology Department used multiple measures in the assessment process: 1) standardized tests (Graduate Record Examination, Medical College Aptitude Test, Dental Aptitude Test, Optometry College Admissions Test); 2) senior and alumni surveys; and 3) a survey of undergraduate advising. Summary data from the standardized tests indicate that graduating seniors score, in most cases, higher than the national averages as well as higher than those students accepted at the various medical and professional schools in Virginia. Both seniors and alumni agreed that the knowledge and skills gained as a result of their university experience were sufficient to pursue their career goals. Both groups indicated that they would pick the same major again. Several changes have been made in the program as a result of the outcomes assessment, however. For example, the faculty was concerned because seniors identified the introductory botany course as one of the least useful and least enjoyable in the major. The faculty affirmed their belief in the importance of this course and resolved to place greater emphasis on it. As a result of student concerns over advising, the department initiated a course at the freshmen level to focus student attention on academic and career planning.

Civil Engineering

One of the multiple measures used by the Civil Engineering Department to assess undergraduate student outcomes was the Fundamentals of Engineering Examination. Over the past two years, 87 percent of the seniors passed this examination. This percentage compares favorably with the national average (61 percent) and is the highest among all Civil Engineering programs in Virginia. Even with this high percentage of students passing the examination, several changes have been made to include course work (electrical engineering and thermodynamics) not normally covered in Civil Engineering programs. Data from teacher ratings indicated that teaching effectiveness was among the best in both college and the university; data from the senior and alumni surveys indicated that both groups were satisfied with their major at Virginia Tech and that their education served them well in obtaining employment. However, these data also showed that forty percent were dissatisfied with their advising and career counseling and with the small number of laboratory exercises in their curriculum. The department has responded to both concerns with an improved advising process coordinated by a faculty committee and the incorporation of three new laboratory courses into the program of study.

Clothing and Textiles

In the Department of Clothing and Textiles, data were collected using multiple measures: 1) alumni, senior, and sophomore surveys; 2) course performance assessment; and 3) assessment of the departmental core. In addition, development of a senior seminar course began. In the full report, the responses from sophomores, seniors and alumni were compiled and compared. While the responses to many of the items were positive, a thorough review of the data revealed several areas to be considered in curricular and faculty development activities. For example, student attitudes toward advising were very good, but there was evidence that advisors needed to improve their knowledge about option requirements and to provide students with more help in career counseling and planning. The data indicated that the quality of instruction in the department was good; however, the respondents suggested that faculty continue to keep abreast of new developments and new technology and incorporate these into the instructional program. In reviewing the curriculum requirements, attention will be given to all required courses, including the chemistry sequence; to the adequacy of laboratory courses, and to the sufficiency of elective courses.

Computer Science

While the Computer Science Department used multiple measures in the implementation of their departmental assessment plan, one result of the assessment process was the decision to use the ETS-Major Field Achievement Test beginning in spring, 1990. The data analyzed in the meantime included: 1) evaluations of CO-OP programs, 2) senior and alumni surveys, and 3) a departmental advising survey. The results of the portion of the student's education over which the department has the most control, conveying knowledge and career preparation, were very favorable. Computer Science graduates compete very favorably on the national market, command good salaries, and do their jobs well. The data indicate that they bring with them not only good computer-science knowledge and skills but also good general intellectual, communication, and organizational skills. Areas in which students themselves have felt less adequately prepared than in computer science are: 1) written and oral communication skills; 2) development of a sense of values and ethics; and 3) career information. With the beginning of the semester system, a new two-credit course in Professionalism in Computing became a curriculum requirement. This course will address ethical issues confronting computer professionals and will provide students new opportunities for developing their oral and written communication skills.

Engineering Science and Mechanics

The Department of Engineering Science and Mechanics used multiple measures in the assessment process: 1) EIT professional engineering examination, 2) evaluation of the CO-OP programs, 3) senior and alumni surveys, and 4) the evaluation of the senior design thesis. Over the past several years, greater than 95 percent of the seniors who took the EIT examination passed it; in 1988, all 18 students passed. The national average for comparable programs is 66 percent. Data collected over the past 20 years indicate that approximately 60 percent of the graduates have enrolled in graduate school and have earned at least a master's degree. Many graduates also hold responsible managerial or administrative positions in industry and government. The senior and alumni surveys did indicate two areas of concern. In response to a perceived need to improve career counseling, the department has appointed one faculty member to oversee the process. Regular meetings between this faculty member and each student will be scheduled. There was also a problem concerning the skills and knowledge attained in laboratory courses caused by the shortage of laboratory space that is an ongoing concern of the department, college, and university.

Geography

The major component of the Geography Department's plan is a two-semester capstone experience. The purpose of this experience is to give students the knowledge and skills necessary for a career in geography as well as to help them acquire perspectives, skills and self-confidence that will carry them forward to other situations that demand careful reasoning, critical analysis, and presentation of defensible conclusions. Evaluation of student performance in this capstone experience includes the rating by several departmental faculty of oral presentations. In addition to using the university-wide alumni and senior surveys, the department also distributes an extensive questionnaire to all graduating seniors. When considered together, the various data indicate a high level of satisfaction with the geography program.

Landscape Architecture

The assessment plan for the landscape architecture program has four components: 1) the senior project, 2) a review by outside evaluators, 3) alumni surveys, and 4) a senior survey. The senior project is the most important component of the plan. During the fifth year of the program, students undertake a comprehensive year-long project culminating in an oral final defense (called the "substantial presentation") and the preparation of a written thesis. Both the oral and written components are evaluated by faculty teams and external reviewers. During 1989, five of the six students passed the substantial presentation; the remaining student is completing additional work prior to defending his project. Based on the responses of alumni, it appears that the program has improved the quality of the educational experience for its undergraduates. Prior and recent alumni are consistent in their identification of important components of the academic program: 1) technical-professional development; and 2) personal development. One area, deemed important but rated as a weak educational experience, is CADD (Computer Aided Design and Drafting). Improvement of that educational experience will require more computers and faculty training.

Poultry Science

The outcomes assessment plan for the Poultry Science Department includes: 1) a senior seminar, 2) a senior exit interview, 3) an alumni survey, and 4) the employment record of graduates. Student perceptions obtained from a review of the information obtained through the university senior survey indicate that the poultry-science curriculum, instructors, and advisors were viewed positively. Student perceptions regarding educational achievements were also positive. The student/department head exit interview and the senior-seminar discussions support the views obtained through the university senior survey. Most importantly, these reviews indicate that the curriculum emphasizes communication skills intended to facilitate an integration of theoretical and practical knowledge that will be needed by the student in developing workable policies and procedures. Over the period 1973-1987, the poultry science curriculum was changed so that communications, business and computers as well as poultry husbandry courses became significant components of the poultry-science undergraduate program. The alumni respondents indicated that the revised program was valuable in their ability to gain employment and to accomplish career objectives, whereas those not having the revised curriculum indicated that economics, management and communications, in addition to poultry husbandry, needed to be emphasized in the poultry-science curriculum.

Virginia Polytechnic Institute - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	24,564	24,828	24,246	23,847	23,184
Fall Enrollment	24,926	24,280	24,977	24,657	24,193	23,303
First-Time Freshmen Enrolled	4,264	4,171	4,166	4,051	4,163	4,128
First-Time Transfers Enrolled	666	598	575	752	830	939
Associate's Degrees Awarded	—	53	0	0	0	0
Bachelor's Degrees Awarded	—	3,611	3,877	3,581	3,690	3,757
Master's Degrees Awarded		1,194	1,075	1,002	854	813
Doctor's Degrees Awarded		303	287	295	274	260
First Professional Degrees Awarded	—	77	79	80	79	72

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 24,926

Male	59.3%
Female	40.7%
In-State	70.9%
Out-of-State	29.1%
Full-Time	86.1%
Part-Time	13.9%
On-Campus	92.0%
Off-Campus	8.0%
Black	3.8%
White	84.9%
Other Races	11.3%
21 and Under	59.8%
Over 21	40.2%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Engineering	994
Business and Management	805
Social Sciences	245
Education	222
Life Sciences	208
Home Economics	195
Agricultural Sciences	148

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Engineering	15.6%
Business and Management	13.9%
Mathematics	10.1%
Physical Sciences	8.8%
Social Sciences	8.7%
Letters (English, Literature)	8.3%
Biological Sciences	5.0%
Home Economics	4.6%
Education	4.3%
Architecture and Environmental Design	4.2%
Agriculture and Natural Resources	2.9%
Psychology	2.0%

1989 First-Time Freshmen Admissions

Applied	14,791
Accepted	9,932
Enrolled	4,264
Acceptance Rate	67.1%
Enrollment Rate	42.9%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Doctoral Total	Percentage of Doctoral
1977-78	$23,707,048	$55,408,579	42.79
1986-87	$70,210,654	$179,451,325	39.13

All figures as of February 16, 1990

*On-Campus only

Virginia State University

Virginia State University was founded on March 6, 1882, when the legislature passed a bill to charter the Virginia Normal and Collegiate Institute (V.N.C.I.). Delegate Alfred W. Harris, a black attorney who represented Dinwiddie County in the General Assembly, sponsored the legislation that created the coeducational institution "to be used exclusively for the education of colored people." Thus, the Commonwealth of Virginia became the first state in the nation to support a public black college that offered the baccalaureate degree.

A hostile lawsuit delayed the opening day for some 18 months, but classes finally began at V.N.C.I. on October 1, 1883, with 62 students and six faculty members. The initial curriculum was divided into three departments: Academic (a two-year college preparatory program); Normal (a three-year teacher training program); and collegiate studies (a four-year advanced program leading to a bachelor's degree).

In 1902, a new Virginia constitution went into effect; blacks lost the right to vote, and V.N.C.I., which had already awarded 49 bachelor's degrees, saw its college department abolished by the General Assembly. The School's name was changed to Virginia Normal and Industrial Institute, and its mission was changed to provide manual training for blacks. In 1920, the land-grant role was transferred from Hampton Institute to V.N.C.I., and the baccalaureate degree program was restored in 1923, after having been absent for over twenty years.

Tempera Paint

The name of the institution was changed to Virginia State College for Negroes in 1930 and to Virginia State College in 1946. Finally, in 1979, the legislature passed a bill to change the name of the institution to Virginia State University. The University's campaign for the bill stressed that it would become the regional university for all residents of southside Virginia—the only one of Virginia's six regions that lacked a state university—while at the same time continuing its role as a nationally-known institution, famed for cultivating and nurturing young black men and women.

Today, the University consists of seven schools: Agriculture and Applied Sciences, Business, Education, Humanities and Social Sciences, Natural Sciences, Continuing Education and Graduate Studies. The institution has a current enrollment of approximately 4,000 students and offers 34 bachelor's degree programs, 19 master's degree programs, and the post-master's Advanced Certification Program. The University has agreements with all community colleges of the Commonwealth to accept students who have completed the requirements for the associate in arts or associate in science degree through the College Parallel/College Transfer Program. Virginia State University cooperates with Virginia Commonwealth University in health education and Master of Interdisciplinary Studies programs. It also cooperates with Old Dominion University in a five-year mathematics/engineering degree program.

A memorandum of understanding between Virginia State University and Virginia Polytechnic Institute and State University supports cooperative programs in agricultural and extension service programs. A joint memorandum of understanding between Virginia State University, University of Wisconsin—Madison, and the United States Agency for International Development promotes the strengthening of both institutions in the area of international agriculture and international education.

Purpose of the Institution

The mission of Virginia State University, one of the state's two land-grant institutions, is to promote and sustain academic programs that integrate instruction, research and extension/public service in a design most responsive to the needs and endeavors of individuals and groups within its scope of influence. The University is dedicated to providing for its students an education which challenges their intellect and prepares them to become knowledgeable, perceptive and humane citizens who are secure in their self-awareness, equipped for personal fulfillment, sensitive to the needs and aspirations of others, and committed to assuming productive roles in an ever-changing global society. Virginia State University is committed to maintaining a personal, service-oriented atmosphere which allows for the admission of a diverse mix of students; celebrates scholastic aptitude; recognizes disadvantaged circumstances; welcomes persons without regard for race, gender, age or ethnic origin; encourages creativity and ingenuity; emphasizes the highest standards; holds the cost of education within the reach of all citizens; promotes an atmosphere conducive to the highest social, cultural, and moral standards; assumes responsibility for advancing the role of the Commonwealth as a leader in education, trade, culture and entrepreneurial skill on a global scale; and is responsive to the needs and aspirations of those who might otherwise go unnoticed in higher education.

Through expanded outreach programs, greater emphasis is placed on the identification and grooming of pre-college students with liaisons with elementary, middle and high schools throughout the Commonwealth. The General Studies Program was established to supervise and coordinate academic experiences and related services for students in pre-college programs, first-time freshmen, and all other students who have not yet met the requirements to transfer to upper-division programs. A variety of credit and non-credit courses, offered through continuing education programs, provide opportunities designed to meet the needs of adult students who wish to diversify their professional competence or broaden their personal background.

The University seeks to fulfill a public obligation to fashion an environment which promotes access and diversity at the student, staff, faculty and administrative levels, especially as it relates to greater inclusion of whites, women, persons from other nations and minorities. The University has a commitment to extend its research, instructional and service resources to meet the educational needs of individuals and to promote learning experiences for persons engaged in the professions, industry, business, and public agencies.

Extent of the University's Mix of Instruction, Research and Public Service

At the center of the educational program of Virginia State University is a strong liberal arts preparation, with increasing emphasis on academics and promotion of high standards. Substantial attention is also being devoted to the establishment of six centers of excellence in the areas of an honors college, aquaculture, music and fine arts, water resources, business, and engineering technology. Emphasis at the graduate level is on the natural sciences, especially physics and chemistry, and on teacher education programs, with special attention given to in-service training for teachers in surrounding communities.

On an annual basis, the University obtains over $5 million for research from external sources. The greater percentage of these funds is channeled through the School of Aquaculture and several extension service programs in conjunction with the University's land-grant function. Other research is being conducted which involves the development and application of cutting-edge technology to problems of illiteracy, drug abuse, academic under-achievement, career stagnation, and a host of other problems which are endemic to minority and disadvantaged communities.

The University continues to strengthen its relationship with local, state, and regional communities, with particular emphasis being given to public relations and institutional responsibilities. Virginia State University's future is inextricably associated with the educational, economic, cultural and social development of southside Virginia; thus, what is in the best interest of one is in the best interest of the other.

The Institution's Future Directions

Virginia State University will build upon its solid foundation and present strengths into the 21st Century. Enrollment will be maintained at 4,000 FTE students through 1995 as added emphasis is placed on academic rigor, retention, and the quality of student life. Assessment processes and reactions to its results will impact upon all aspects of University operations.

The academic program will be streamlined, while at the same time, premiere status will be achieved in a few, well-selected areas and disciplines that will serve as the basis for promoting the University throughout the Commonwealth, the southern region, the nation and the world. As a part of the curriculum-strengthening initiative, international education and global studies will be introduced across the curriculum. Areas of focus will include, but not be limited to, social studies, business (especially economics and marketing), the sciences, languages and literature, political science, and the arts. Greater emphasis will also be placed on computer literacy and programs that involve high technology.

The University will accelerate its efforts to provide opportunities for faculty development, including funded research. The public service component of the University will expand as it becomes more integrally involved with the economic development of southside Virginia.

Student Assessment

The principal objective of the Virginia State University assessment program is the improvement of educational quality as demonstrated by student outcomes over an extended period of time. The driving force behind the viability of the assessment program is the utilization of evaluation results to improve institutional effectiveness. The essence of the assessment activities undertaken at VSU during the 1988-89 academic year focused particular attention in the areas of general education, the major, remediation, alumni follow-up, and affective variables.

In order to ascertain the degree of progress in its efforts to improve academic quality as measured by student outcomes, the University has developed and has begun implementation of a comprehensive testing program. The purpose of the University Testing Program is to raise the performance levels of VSU students on internally-devised and standardized tests upon entry and exit. It focuses on diagnosis and prescription through the periodic administration of a variety of examinations throughout the duration of students' matriculation. Results have been incorporated into the curriculum review process and have also been utilized to enhance programs and services. The VSU *Master Plan* guides the evaluation of all assessment strategies and is used in conjunction with the University's revised plan for curriculum review.

More specific findings and uses of the resulting data are as follows:

General Education

The assessment activities undertaken during the 1988-89 academic year in the area of general education were geared primarily toward program evaluation, with emphasis on collecting qualitative data from faculty surveys, course syllabi, and faculty evaluative measures as a first step in determining program effectiveness. Results of faculty surveys showed that 95.9 percent strongly agreed or agreed that the global statements address the objectives of the courses taught. Some indicated that the objectives needed to be reworded, rephrased, or rewritten. Accordingly, the University has taken steps to develop measurable objectives for the general education program as well as for individual general education courses that are clearly linked to the University's mission and to the overall objectives of the general education program. Common syllabi and common examinations are also being developed for all general education courses with multiple sections, and both will be utilized beginning with the 1990 spring semester.

In order to measure cognitive growth between freshman and sophomore years, the ACT COMP will be administered to all freshmen in August 1989 and every year thereafter. All returning sophomores will take the same examination beginning in August 1990.

Major Area

Results of standardized and internally devised examinations administered by a number of departments have been used primarily for diagnostic purposes, although some areas have reported improvement in student performance when scores are compared with those from identical tests administered in previous years. As part of the University Testing Program, all students will be required to take and pass a comprehensive examination in his or her major as a requirement for graduation by spring 1994. Departmental comprehensive examinations are designed to assess the extent to which students satisfy program objectives in their major areas of study. They are based on test items developed by departments from course objectives and are also intended to be used in the (1) evaluation of curricular offerings; (2) alteration of course content; (3) upgrading of standards; (4) identification of student strengths and weaknesses; and (5) preparation of students for examinations in professional areas.

Toward this end, specimen copies of ETS Field Tests, GRE subject tests, NTE specialty area tests, and information relative to capstone courses have been ordered for review and possible adoption. Those departments for which an acceptable standardized examination does not exist will utilize the capabilities available through the Virginia State University Office of Testing for assistance with technical aspects of test development. The testing office can also provide simplified item analysis, including reliability statistics. Although these services have been under-utilized in the past, all deans and department chairpersons are committed to take advantage of them in the future as required steps in the process of establishing reliability of internally devised comprehensive examinations. The validation process, which is more complex and time-consuming due to the necessity of comparing the assessment tools in question with other acceptable measures, will be conducted by the Office of Testing in collaboration with the Assessment Office and the Office of Institutional Research.

Developmental (Remediation)

The University has established stringent guidelines for placement of students in college-level and developmental courses based on the SAT or ACT. Those placed in developmental courses are subjected to a rigorous, carefully monitored and regularly evaluated program which may not exceed twelve (12) credit hours per semester. Beginning with the 1989 fall semester, those students who enter the University with a score on the SAT or its equivalent that is less than the University-set standard will retake the examination and are expected to make an acceptable score by the end of the sophomore year.

The Nelson-Denny Reading Test is used to determine the level of student proficiency in the area, with students who score below 12.0 being placed in developmental reading. If the required level is not attained by the end of the first year, students may not enter their next sequence of courses unless thay are also registered in the Reading Center. Students may not exit the general education program nor senior-level departments/schools until a grade of 12.0 or better is achieved on the Nelson-Denny Reading Test.

Data obtained from test results during the 1988-89 academic year reveal that an unacceptable number of students received the grade of "E," which is a neutral grade assigned to students who score between 9.0 and 11.9. The "E" grade was designed to indicate progress toward satisfying the final requirement, while allowing the student to re-enroll in the Reading Center without the penalty of receiving a failing grade or jeopardizing his or her FTE status. However, in the past, many students who had completed one or more semesters in the Reading Center without achieving the required proficiency level of 12.0 failed to re-enroll during the subsequent semester. Thus the University has removed the "E" grade from the 1989-90 academic year. Further, a computer program has been devised which will automatically re-enroll students in developmental reading during subsequent semesters if they have not received a passing grade. These steps have been taken to ensure that no student is allowed to begin upper-level courses until all deficiencies have been removed.

The internally devised Mathematics Department Placement Test (MDPT) is used to place students who score 50 and above in an appropriate college-level course and those who score below 50 in the appropriate developmental course in accordance with their curricula. A study designed to examine the effectiveness of remediation in mathematics compared the performance of students who enrolled in college-level mathematics upon entering the University with those who have previously enrolled in developmental mathematics. The basic assumption was that similar performance by both groups of students in the college-level courses would provide evidence of the effectiveness of developmental courses. One trend that is apparent from a preliminary analysis is that mathematics skills do tend to increase as a function of exposure to instruction in developmental mathematics classes.

The writing component of the developmental program must be strengthened with the definition and implementation of procedures for collection, analysis and interpretation of data. Toward this end, a blue-ribbon committee has been formed and has begun work to enhance the assessment process as it relates to placement and exit critieria, curricular content, instructional methods, and evaluation tools for the developmental writing course. In addition, the committee has been charged with developing strategies for implementation of the writing proficiency component of the University Testing Program.

Alumni Follow-Up

The individual instruments that have been used by various departments to survey alumni served as the basis for the development of a comprehensive Virginia State University Alumni Survey which is mailed in the spring semester of even-numbered years. Responses to the various surveys have been utilized in a number of ways to strengthen the University's programs and services. For example, respondents from the School of Natural Sciences identified lack of sufficient exposure to mathematics and sciences in elementary and secondary schools as the key barrier to careers in the natural sciences. The University has since dramatically expanded its outreach programs to include more involvement with the math/science experiences of elementary and secondary school students. Responses from business graduates resulted in the development of a generic degree in marketing and management in lieu of the more narrowly focused food marketing/food industry management program and to the establishment of three specialized curriculum tracks in the business administration major. Also, additional on- and off-campus continuing education courses are being offered as a result of suggestions from nursing graduates.

Affective Variables

A study conducted by the Office of Institutional Research and Planning over a five-year period showed that there was no significant difference between the mean high school grade point averages, SAT math scores, or SAT verbal scores of those freshmen who returned as sophomores and those who did not. From these findings, it is evident that on an average, students enter Virginia State University with about the same prior preparation and that variables other than academic ability contribute significantly to success in college.

Accordingly, VSU has placed additional emphasis on education of the "whole student" and believes that it is important that an assessment of student outcomes include a blend of cognitive and affective factors. Affective characteristics of VSU students are assessed using *The College Student Inventory* (CSI), which is a multidimensional appraisal of student motivation.

Actions taken by the University toward development of the "whole student" have included the evaluation and reorganization of the entire Division of Student Development. The General Studies program has also been established as an academic unit which supervises and coordinates academic experiences, related programs, and special needs of freshmen and other students who have not yet met the requirements to transfer to senior-level schools. Further, a one-on-one academic advisement plan has been developed which involves faculty from all academic departments to serve the needs of the novice and underprepared student.

Because of Virginia State University's mission and history, it is uniquely qualified to provide the nurturing necessary for its cadre of underprepared students without lowering standards nor sacrificing quality in any respect. To the contrary, the expansive focus on both cognitive and affective aspects of assessment will not only improve retention, but it will also raise standards and levels of student performance.

Virginia State University - Statistical Profile

	1989-90	1988-89	1987-88	1986-87	1985-86	1984-85
Annual FTE*	N/A	3,434	3,372	3,315	3,694	3963
Fall Enrollment	4,073	3,885	3,891	3,583	4,027	4,108
First-Time Freshmen Enrolled	1,184	1,036	1,071	752	934	947
First-Time Transfers Enrolled	134	104	93	140	109	104
Associate's Degrees Awarded	—	0	0	0	0	0
Bachelor's Degrees Awarded	—	309	380	385	447	489
Master's Degrees Awarded		74	96	79	75	109
Doctor's Degrees Awarded	—	0	0	0	0	0
First Professional Degrees Awarded	—	0	0	0	0	0

*FTE - Full-Time Equivalent Enrollment

On- and Off-Campus For Fall 1989 - 4,073

Male	40.1%
Female	59.9%
In-State	61.3%
Out-of-State	38.7%
Full-Time	77.3%
Part-Time	22.7%
On-Campus	89.0%
Off-Campus	11.0%
Black	87.2%
White	11.5%
Other Races	1.2%
21 and Under	61.7%
Over 21	38.3%

Most Popular Bachelor's Degrees 1984-85 to 1988-89*

Business and Management	132
Education	71
Social Sciences	36
Public Affairs	33
Multi/Interdisciplinary Studies	28
Engineering & Related Tech	24
Marketing & Distribution	11

*average per year

Course Distribution 1988-89* (Percentage of Instructional Effort)

Business and Management	18.2%
Letters (English, Literature)	15.6%
Education	13.4%
Mathematics	11.8%
Social Sciences	11.4%
Physical Sciences	5.5%
Computer and Information Sciences	4.9%
Psychology	4.3%
Biological Sciences	3.2%
Foreign Languages	2.6%
Public Affairs & Services	2.6%
Fine and Applied Arts	2.5%

1989 First-Time Freshmen Admissions

Applied	3,362
Accepted	3,253
Enrolled	1,184
Acceptance Rate	96.8%
Enrollment Rate	36.4%

Research Expenditures: 1977-78 versus 1986-87

Years	Expenditures	Comprehensive Total	Percentage of Comprehensive
1977-78	$2,051,160	$2,863,488	71.63
1986-87	$2,125,079	$4,652,522	45.68

All figures as of January 16, 1990
*On-Campus only

INSTITUTIONAL NARRATIVES

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INDEPENDENT INSTITUTIONS

The Council of Higher Education has had a cooperative, productive relationship with Virginia's independent colleges and universities for the last 16 years. Among its duties, the Council administers a tuition aid program to reduce the tuition gap between public and independent colleges; the program helps provide Virginia students greater freedom of choice in selecting an institution. The Council also has a Private College Advisory Committee as one of its standing committees. The 1975 General Assembly mandated the Council to provide advisory services to private institutions.

The Council's interaction with the independent colleges and universities will become increasingly important in the years ahead. What happens in one segment of higher education ultimately affects the other segments. The Council believes that this interdependence will strengthen the state's total system of higher education.

Averett College

Chartered in 1859, Averett is a coeducational college of arts and sciences affiliated with the Baptist General Association of Virginia. The institution received its first accreditation as a junior college in 1917 and undertook a major reorganization in 1968 when it added a four-year baccalaureate degree program and became coeducational. Graduate-level offerings were begun in 1978, with courses leading to a master's of education degree. A master's of business administration program was added in 1983.

The curricular philosophy of Averett College emphasizes the blending of the liberal arts with career preparation. For the next decade, the primary academic development of the college will be in strengthening the existing programs. Attention will be given to improving coordination with the community and junior colleges and the exploration of cooperative ventures with other institutions in the state to meet the special needs of the community.

Averett serves the community as the only senior college in its south-central Virginia region. It provides access to a quality education for the students of this region. It is a resource for the economic growth of this region, and it contributes significantly to the quality of life in this region through its cultural and community service activities. Although its primary market area is south-central Virginia, Averett plans to continue to market successfully its services in other areas of the state and parts of the country as well.

An important element of the educational process at Averett is the unusual diversity of its student body. Approximately 40 percent of the total enrollment of 1,216 (Fall 1989) are traditional students that reside on campus. Of the 60 percent that commute, many are "non-traditional" students in non-traditional programs who bring to their classes a wealth of real life experiences. Averett will work to keep a student body that represents a broad socioeconomic and cultural base of individuals from the immediate community as well as other regions of this country and foreign countries.

Averett's education is one of personal interaction. While research and scholarly activities are encouraged, the faculty's primary emphasis is on teaching. Averett's class sizes are small, and personal attention is the result.

Averett plans to continue to operate with financial stability, emphasizing further improvement of its endowment and asset-building funds. Growth in its ability to provide financial aid and to maintain a campus that will be a source of pride for all those associated with Averett are its immediate fiscal goals.

Bluefield College

Founded in 1922, Bluefield College is a private residential liberal arts college of 435 students.

Located in the Allegheny Mountains in Southwest Virginia, the campus is part of the town of Bluefield, about 100 miles southwest of Roanoke.

A Virginia Baptist college, Bluefield's purpose is to provide higher education in an environment defined by a strong religious heritage.

The small size of Bluefield means a more personalized education. Small classes encourage the dedication of the faculty to the success of the individual student.

Accredited by the Southern Association of Colleges and Schools, Bluefield offers baccalaureate and associate degree programs both for students with exceptional skills and students who need help with the basics.

Associate degree programs are offered in liberal arts, fine arts, education, several medical specializations, and engineering.

Bachelor degree programs include behavioral science, biology, business administration, chemistry, education, English, fine arts, general science, history, interdisciplinary studies, mathematics, physical education, psychology, religion and philosophy, and social studies. The largest program is business administration followed by teacher education.

Interdisciplinary and general studies, independent research, and teacher certification are additional academic emphases that Bluefield offers.

College facilities include three dormitories providing housing for 267 students.

Future plans call for Bluefield to increase its size to 750 students.

Eighty-one percent of Bluefield's students come from the Commonwealth. As it continues to serve the citizens of the Commonwealth, Bluefield College seeks to be a college characterized by a commitment to the individual student, to teaching quality and the liberal arts, to affordability, and to strong ethical and religious values.

Bridgewater College

Bridgewater College, located in the Shenandoah Valley, is an independent liberal arts college with a long tradition of academic excellence. Founded by a leader in the Church of the Brethren, Bridgewater offers strong academic programs in 28 major fields and enrolls approximately 1,000 men and women representing many states and foreign countries. Bridgewater, Virginia's first senior coeducational liberal arts college, offers its students outstanding opportunities for a variety of educational experiences including study abroad, internships, and independent studies.

Bridgewater's liberal arts curriculum is divided into three major parts, each with its own requirements and objectives: general education, a field of concentration, and elective courses. The general education program is designed to ensure that each student acquires an understanding of people and their cultures as well as their social and natural environments. Fields of concentration provide depth and breadth of study in major areas. Elective studies increase skills and understandings in and beyond a student's major field, meet avocational interests, and enhance preparation for graduate and professional schools.

Experiential learning is an elective component of a Bridgewater education. The internship program encourages students to explore career options and to experience first hand the day-to-day realities of the work place.

A three-week interterm in late winter allows a student to choose among a wide variety of learning experiences and to concentrate on a subject of particular interest. Dual-degree programs are offered in cooperation with Duke University in forestry and with Pennsylvania State University in engineering. Through reciprocity agreements among departments of education, students who complete Bridgewater's program in teacher education are eligible for certification in 29 states. Honors and independent study programs provide unlimited opportunities for students to range beyond the specified course curricula. Through the Brethren Colleges Abroad consortium, of which Bridgewater is a member, students may study their junior years at the University of Strasbourg in France, Philipps University in West Germany, the University of Barcelona in Spain, the College of St. Paul and St. Mary of England, the Dalian Institute of Foreign Languages in China, or Hokusei Gakuen University in Japan.

Bridgewater College strives to promote broad intellectual experiences as well as proficiency in specific subject fields. A primary academic objective is a comprehensive appreciation of the humanities, the social sciences, and the natural sciences. Bridgewater endeavors to give its students strong bases on which to build specific careers and productive lives.

Christendom College

Christendom is a four-year Catholic liberal arts college founded in 1977 by lay Catholic educators. The College offers students a curriculum centered on the truths of Divine Revelation as taught by the Catholic Church, and the truths of natural reason derived from the natural law and human experience. The curriculum integrates the knowledge acquired from these sources. The College fosters in its students a commitment to the lay apostolate, that is, the task of transforming the social order in Christ.

Christendom College grants the Associate of Arts in liberal studies, and the Bachelor of Arts in the following fields: English, French, history, mathematics, philosophy, physics, political science and theology. Students are invited to participate in two career orientation programs in teaching and politics. These programs give the student hands-on experience directed by practitioners in these fields.

Students are drawn from around the United States. Two-thirds come from beyond the Maryland-Virginia area. The college now has 174 students living on a 150-acre campus bounded on the west by the Shenandoah River and on the east by the Blue Ridge Mountains. A vigorous financial aid program of work-study, loans and grants attracts students who otherwise could not afford private education.

Community Hospital of Roanoke Valley College of Health Sciences

The Community Hospital of Roanoke Valley College of Health Sciences was founded in 1982 as a private junior college offering degree programs exclusively in the health care fields. Situated in Roanoke, in the heart of Virginia's scenic Blue Ridge Mountains, the College offers a combination of a broad-based perspective of general education incorporating humanities and sciences and technical knowledge applied to programs of health and human development.

The College of Health Sciences is sponsored by Community Hospital of Roanoke Valley, and as such is the first accredited, hospital-sponsored allied health junior college in the South. The College of Health Science's mission is to provide a learning environment where the separation of theory from practice is bridged through an educational setting where clinical practice is guided by theoretical perspective, and theory is revised and enlarged through clinical practice.

Through affiliation with Community Hospital of Roanoke Valley, as well as other affiliated hospitals, nursing homes, and rescue squads throughout southwestern Virginia, the College of Health Sciences offers its students hands-on clinical experience to ready them for the demanding role of the professional health care practitioner.

Curricula at the College include associate degree programs in the Emergency Health Sciences Paramedic, Nursing, Physical Therapist Assistant, and Respiratory Care. The College prepares students to write the credentialling examinations for their respective careers, and graduates go on to perform vital roles as professional paramedics, registered nurses, practitioners in the rapidly expanding field of physical therapy, and as life-sustaining providers of cardiopulmonary care. Through a certificate program in Health Services Management, students may augment their credentials to prepare for management positions in a number of health care settings.

The College has its roots in the Community Hospital School of Nursing, created in 1965 from the merger of the Lewis-Gale Hospital and Jefferson Hospital Schools of Nursing. The Lewis-Gale Hospital was founded in Roanoke in 1909 by two physicians, Dr. James Newton Lewis and Dr. Sparrell Simmons Gale. The Lewis-Gale School of Nursing was established in 1911.

The Jefferson Hospital was founded in Roanoke in 1908 by Dr. Hugh Trout, Sr., and was so named because of Dr. Trout's admiration for Thomas Jefferson. The Jefferson School of Nursing was founded in 1914. In 1965, the Jefferson School merged with the Lewis-Gale School to form the Community Hospital of Roanoke Valley School of Nursing. In 1981, the Community Hospital Board of Trustees elected to commit themselves to support of a college which would offer two-year degree programs in nursing and allied health and provide an enhanced educational system for health career professionals.

The State Council of Higher Education for Virginia granted permission to admit students into two-year nursing and allied health programs in 1982. In 1983, the College of Health Sciences received associate degree-granting authority from the State Council. Accreditation was received from the American Medical Association's Committee on Allied Health Education and Accreditation for the College's programs in Respiratory Care in January 1985 and Emergency Sciences in April 1986. In December 1986, the College received accreditation from the Commission on Colleges of the Southern Association of Colleges and Schools. The Physical Therapist Assistant Program received accreditation in 1989 from the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Today the College continues in its mission to offer the educational programs so necessary to the expanding field of health care. With an eye to the future, and a sense of traditions of accomplishment represented by the distinguished schools which were its forebears, the College of Health Sciences represents 80 years of excellence in allied health education.

The College of Health Sciences offers "Education for Life."

Commonwealth College

Commonwealth College is a private, co-educational junior college of business and technology. The men and women who make up the Commonwealth College student body are interested in an education that will prepare them for specific business, technical and professional careers. The curriculum is structured to fit specific employment opportunities in business and technical fields. Commonwealth College has produced successful graduates since it was founded in Norfolk in 1889, as Norfolk Business College. The college was founded as an outreach for male students under the auspices of the Norfolk College for young ladies, whose history dates back to 1845. In 1982, with the continuing growth of Norfolk College's academic offering at the Virginia Beach and Hampton campuses, the Board of Directors adopted a change in name and the college became Commonwealth College in the fall of that year.

The College set an example of quality career education in the earlier years of Norfolk. The College continues today, composed of career-oriented students from throughout Virginia and the United States. The College offers a friendly atmosphere with a faculty and staff that takes a personal interest in every student's progress.

Commonwealth College has campuses located in Norfolk, Virginia Beach, and Hampton, Virginia. These campuses have always enjoyed close contact with the business and professional community and are near areas of historic and scenic beauty.

Since it was founded 100 years ago, Commonwealth College has steered thousands of graduates into the mainstream of the Hampton Roads business and professional community. The purpose of Commonwealth College is to prepare students to enter, prosper in, and meet the needs of businesses in the Hampton Roads area.

To accomplish this purpose, the College offers a variety of career-oriented instructional programs and competent counseling services. Commonwealth College believes that preparing students for participation in the business, technical, and professional community is an important mission and a service to society.

Quality education, emphasized through personal interaction between students and faculty, is a hallmark of the College. Meeting the constant demands of the Hampton Roads communities with people experienced in state-of-the-art business and technical equipment and procedures leads not only to the profitable advantage of the student, but also plays an indispensable role in helping to meet the needs of society. Commonwealth College's professors feel a deep and continuing responsibility to students and the community which employs their graduates.

The College is dedicated to the ideal that each student should have the opportunity to develop his or her full potential. The College is concerned with developing in every student the knowledge and skills necessary for success in their chosen field.

Over a dozen majors are available and all programs require traditional liberal arts courses as a foundation for future career and personal development.

Commonwealth College enrolls approximately 700 students of traditional age in the Day Division, but it also enrolls over 700 nontraditional students in its Evening Division. The College's Evening Division is among the oldest Continuing Education Programs in Virginia.

The College's Phi Beta Lambda Business Fraternity boasts the largest chapter of all junior and community colleges in Virginia. The College's Alpha Beta Gamma Chapter for honor students is among the fastest growing chapters in the nation. The College has an exchange program with Oxford Commercial College in England, one of the premier Secretarial Science Colleges in Europe. Ninety-five percent of the 1989 graduates pursued careers in their chosen field, and approximately five percent of the graduates annually transfer to four-year colleges to pursue a bachelor's degree.

The College received degree granting authority from the Council of Higher Education in 1988. The College is nationally accredited by the Accrediting Commission of the Association of Independent Schools and Colleges. The College is a member of the Southern Association of Colleges and Schools and is petitioning for membership in the association's Commission on Colleges.

Eastern Mennonite College and Seminary

Eastern Mennonite College is a liberal arts and sciences college steeped in the heritage of Christian faith, academic excellence, global awareness and service to humanity. The college offers the Bachelor of Arts and Bachelor of Science degrees in some 40 majors, two-year Associate in Arts and Associate in Applied Science programs, one-year certificate programs, and 27 minors. Professional and pre-professional programs are emphasized with the largest programs in the fields of biology and pre-medicine, business, education, nursing, and social work.

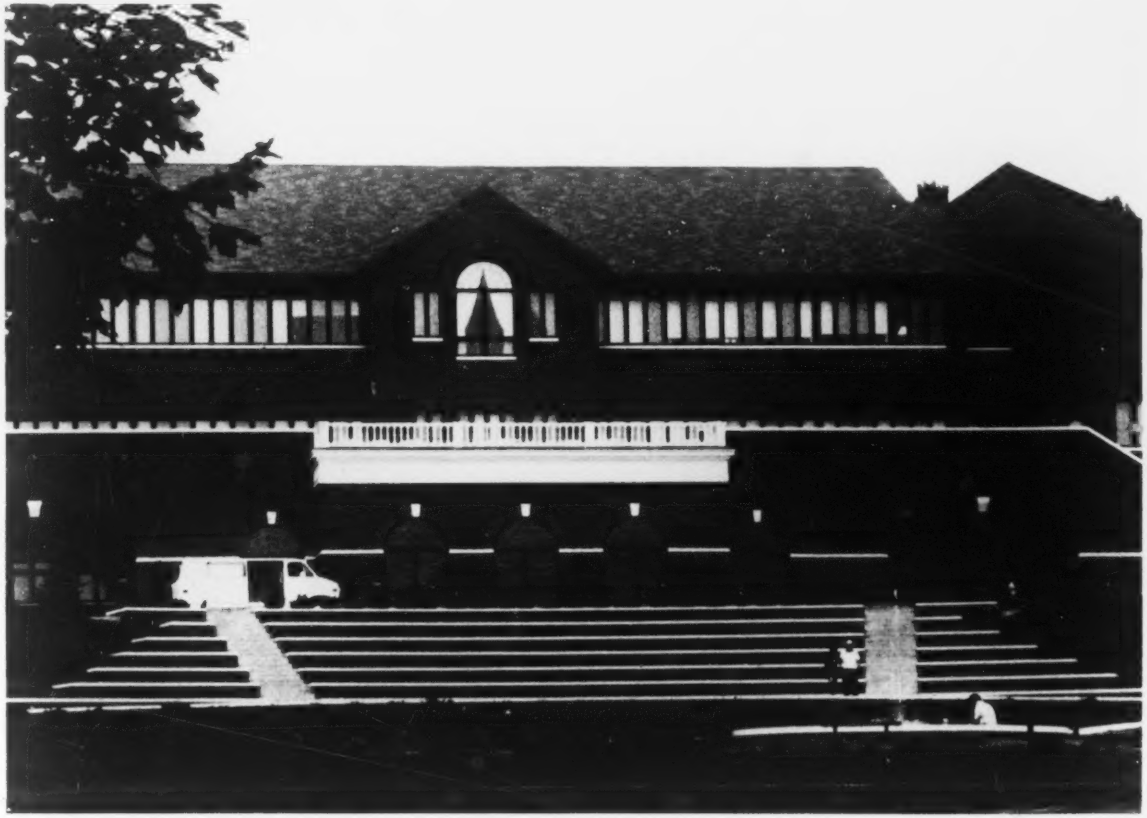
Eastern Mennonite Seminary offers the advanced degrees of Master of Divinity, Master of Arts in Church Ministries, Master of Arts in Religion, and certificate programs in pastoral and biblical studies. The Seminary is accredited by the Association of Theological Schools and approved by the University Senate of the United Methodist Church. 115 students from a wide variety of religious perspectives are enrolled in the seminary programs.

The college is a national leader in its emphasis on cross-cultural education. Of the 60 full-time and 15 part-time faculty members, about 75 percent have lived and worked in other countries. Students are expected to integrate a cross-cultural experience into their academic programs. Opportunities for off-campus study include: semester programs in the Middle East, Latin America, and Europe; Washington Study Service Year; and summer seminars in China, Ireland, New Zealand, Appalachia, Mexico, South Africa, and Southeast Asia.

Graduates are encouraged to use their education to improve the welfare of humankind by working toward world peace, social justice, and equal access to the basic necessities for human life and dignity.

The college student body is composed of 1,071 men and women from 33 states and 11 countries. About two-thirds of the students are Mennonites while the remainder are from various other denominations and religious faiths. The educational community is directed to personal attention, intellectual achievement, and professional development. Classes are small; the student-to-faculty ratio is 16 to 1.

EMC and its programs are accredited by the Southern Association of Colleges and Schools, the National Council for Accreditation of Teacher Education, the National League of Nursing, the Council for Social Work Education, and the American Dietetics Association.

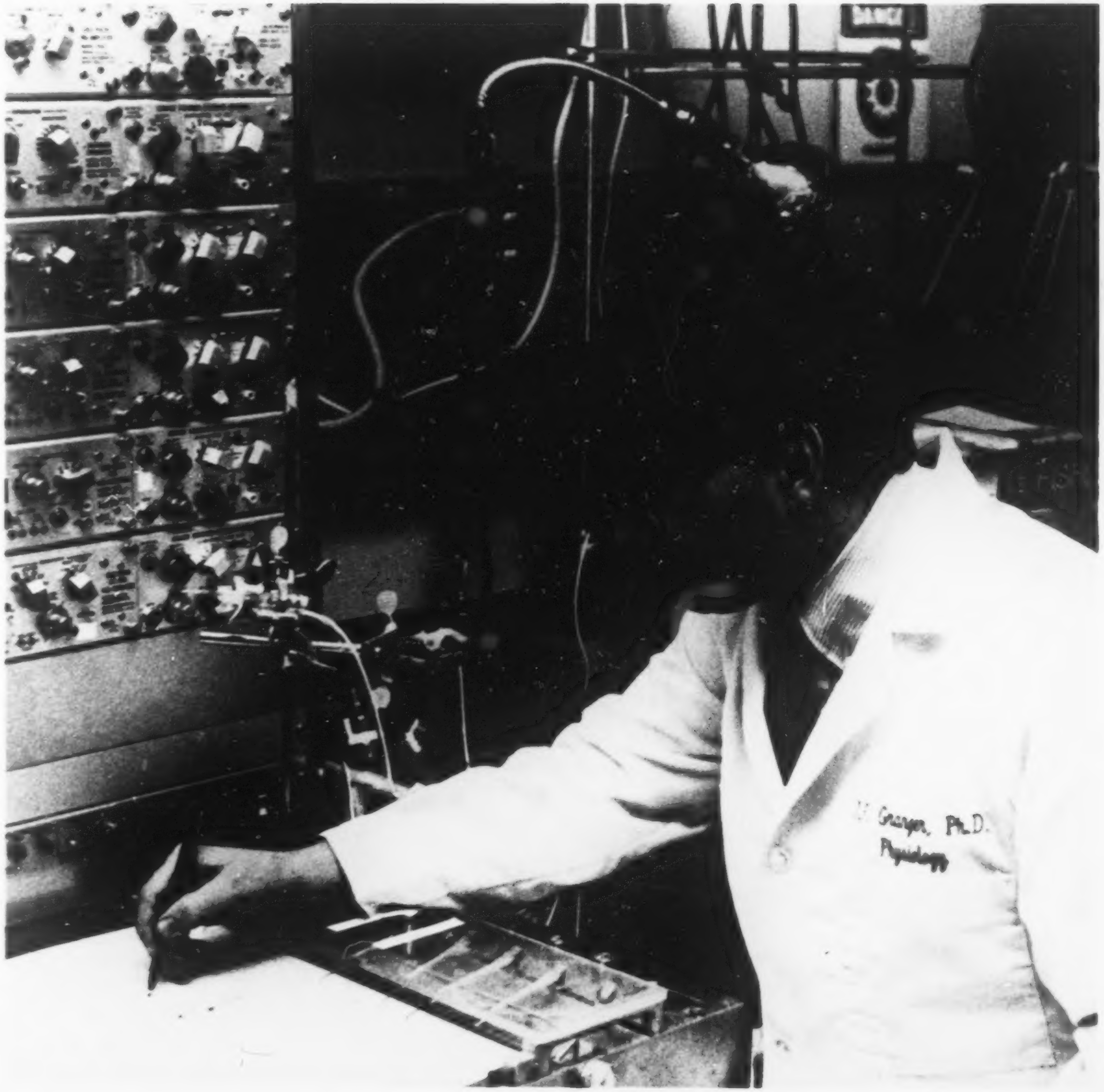


Eastern Virginia Medical School of the Medical College of Hampton Roads

The Eastern Virginia Medical School (EVMS) of the Medical College of Hampton Roads began with a 1964 study by the State Council of Higher Education which concluded that the development of a medical school in eastern Virginia "could be the focal point of a third major health center in Virginia, attracting physicians to the State, providing more educational opportunities for Virginia students and elevating standards of health care through the State." Based on this conclusion, the General Assembly created the Norfolk Area Medical Authority as the body responsible for the development of EVMS. In 1987, the General Assembly changed the name of the Authority to the Medical College of Hampton Roads to reflect more accurately the regional scope of the Eastern Virginia Medical School.

The Medical College operates a community-based medical education system using both private and public financial support physician and hospital resources in the community to promote its educational activities. The core of this system is the Eastern Virginia Medical School, a 384-student medical education program utilizing the health and medical facilities of the region. Other programs operated in support of EVMS include:

- A Research Institute conducting related sponsored research;
- The Eastern Virginia Graduate School of Medicine, a regional 294-resident program in 18



disciplines; 13 area hospitals, and three other community sites:

- The Psychiatric Institute, an 82-bed psychiatric hospital that provides mental health services on an inpatient, outpatient and emergency care basis; and,
- The Medical Services Programs and Pediatric Faculty Associates, two groups of Eastern Virginia Medical School faculty including 153 M.D.s and 51 Ph.D.'s and Licensed Clinical Social Workers who staff a full complement of medical practice units providing professional patient care services.

The major aim of EVMS is to produce scientifically able, compassionate practitioners with a major emphasis in primary care. The Medical School was established as a three-calendar year program leading to a Doctor of Medicine degree; conversion to a four-calendar year program began July, 1983 and all succeeding classes have utilized the four-year curriculum. At present there are 96 students per class.

EVMS also provides continuing medical education programs for physicians in eastern Virginia. The Eastern Virginia Inter-Hospital Medical Education Committee (EVIMEC) provides continuing health education programs for staff members of the 31 area hospitals now affiliated with EVIMEC. The Eastern Virginia Area Health Education Center (EVAHEC) program provides special community based learning experiences for medical, dental, nursing, pharmacy and allied health students. The Medical School does not own a major teaching hospital but, acting in partnership with the communities of Eastern Virginia, has developed a broad variety of clinical educational and service programs.

In 1978 the Medical College was granted permission to offer master's and Ph.D. degrees as well as to participate in a joint program in clinical psychology (Psy.D.). The joint program is offered by the College of William and Mary, Old Dominion University and the Medical College of Hampton Roads in association with Norfolk State University.

A similar joint program at the Ph.D. level in biomedical sciences, using the resources of Old Dominion University and the Medical College of Hampton Roads, began in July 1979. The Medical College also offers a Master of Science program in Art Therapy and provides training sites for psychology interns.

In 1974 the Medical College organized the Eastern Virginia Graduate School of Medicine to oversee the post-M.D. residency training programs in the associated hospitals in eastern Virginia. The Graduate School of Medicine now operates 18 different programs in 13 regional hospitals, serving 294 graduate medical students.

Currently over 750 members of the local physician community have appointments to the faculty of the Eastern Virginia Medical School and are involved in curriculum development and implementation at all levels of the medical education continuum.

Emory & Henry College

Founded in 1836, Emory and Henry College has as its motto the Latin phrase, "*Macte Virtute*," which translates to mean "Increase in Excellence." The College encourages students to give their best in the context of rigorous academic work, a competitive athletic program, and extracurricular activities such as campus government and an award-winning choir.

"*Macte Virtute*" has an alternate translation, "Increase in Goodness," which echoes Emory & Henry's desire also to have students develop a strong value system. Affiliated with the United Methodist Church, the College encourages a concern for values through an annual series of provocative lectures and films, special interest groups, affiliation with a local church congregation, and opportunities for discussion both in and outside the classroom.

In the pursuit of excellence and goodness, Emory & Henry has adopted admissions procedures which give priority to students who possess—in addition to solid academic preparation—a commitment to service and leadership, a bias for action and involvement, and an enthusiasm for learning.

The academic program at Emory & Henry includes a General Studies core required of all students. The General Studies courses help students to develop strong skills in reasoning, critical thinking, and writing; to acquire general knowledge of classic Western literature; to consider questions of faith and of values; and to understand the dimensions of global problems. Because the College places a high premium on individual initiative, classes are small, the faculty-student ratio is 1 to 14, and are heavily oriented toward discussion and writing.

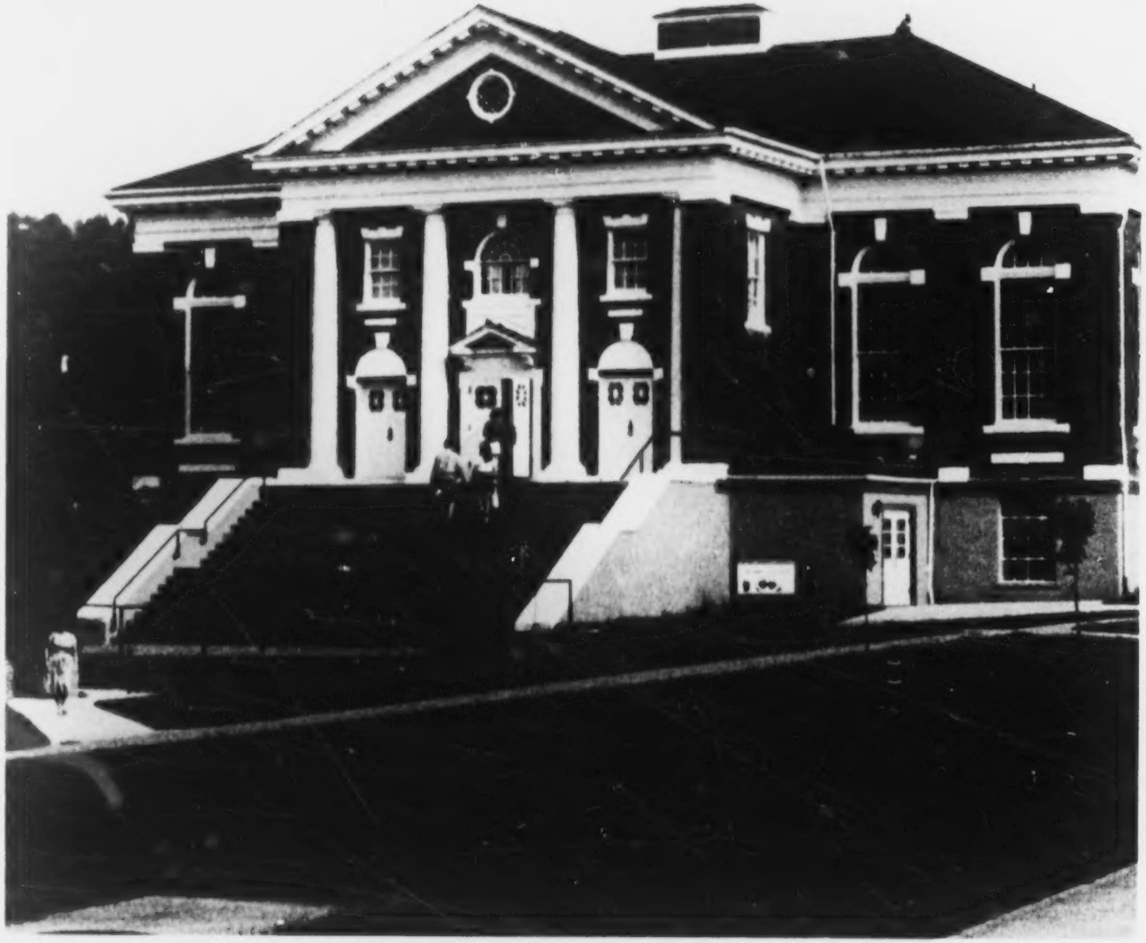
Emory & Henry awards Bachelor of Arts and Bachelor of Science degrees. The college has 20 primary departments and programs with options for interdisciplinary study.

The enrollment of 853 is almost equally divided between men (52 percent) and women (48 percent) students. Approximately two-thirds of all the students reside on campus. Eighty-five percent of Emory & Henry students are from Virginia, but the College currently has students from ten other states. The College plans to remain predominantly small and residential.

Ferrum College

Ferrum College is an undergraduate institution of higher education founded on Christian principles and related to the United Methodist Church. It is a community of learners that actively values the best that has been thought and known. It's approach to education is shaped by a history of service and concern for others. It's effort to nurture these ideals is aided by a splendid setting in the Blue Ridge foothills which stimulates reflective inquiry and inner growth. The campus environment encourages men and women to treat each other with compassion and respect, to value each other's unique qualities and backgrounds and to support each other in the common pursuit of insight and discovery.

Ferrum believes that the goal of human life is to live with meaning and purpose. A life with meaning and purpose, we believe, stems from an understanding of ourselves, our fellow human beings, our physical universe, and the presence of a supreme being. We believe with John Wesley, the founder of Methodism, that such an understanding can be most fully achieved by recognizing and drawing upon the truths given to us by scripture, tradition, reason, and experience. In this broad context, it is our mission to educate students in disciplines of higher learning to help them to be thoughtful and perceptive in meeting experience, to be appreciative of excellence and dedicated to achieving it, and to be caring and concerned citizens of their local community, their nation and their world. We seek to select students motivated to learn and develop to their full potential both in and beyond the classroom. Our program is designed to



encourage students to build a code of values and a sense of self so that they can stand in the world as well-integrated individuals who are informed, discerning, articulate, humane and prepared for service to others.

Because we believe that learning happens in a wide variety of community settings, we are attentive to a student's total college experience. Thus, we seek to create a milieu in which students develop self-respect, self-confidence and the ability to take fuller responsibility for their own life and for the life of the campus. This holistic approach to education provides Ferrum students the opportunity to attain the following goals:

The effective use of language in the articulation of ideas; the ability to convey thoughts, information, emotions, beliefs, attitudes, and values both orally and in writing.

The ability to be an astute listener and reader, to analyze information carefully, to ask perceptive questions and draw logical conclusions.

The discovery of the symbolic and poetical capabilities of language, and the insight and beauty expressed through art, music, literature, theatre and dance.

An appreciation of mathematics and a practical understanding of the necessity of quantitative analysis.

A sense of the profound spiritual dimension in all individual lives and of the significance of religion in all human experience.

An awareness of history as an explanation of past experience and the context for understanding the present and the future.

A knowledge of the physical, psychological, and social worlds, the methods of knowing those worlds, and applications of that knowledge.

An awareness of the value of exploring other cultures, especially their languages, both for its own sake and for the fresh perspectives that the cultures give to one's own world view.

A recognition that the philosophical inquiry into presuppositions provides the foundation for an integrated understanding of world experience.

An appreciation of the dynamics of problem solving and human progress through hard work and cooperative, intellectual and social endeavors.

A perception of the enjoyment and value of physical fitness and its relationship to personal and community health.

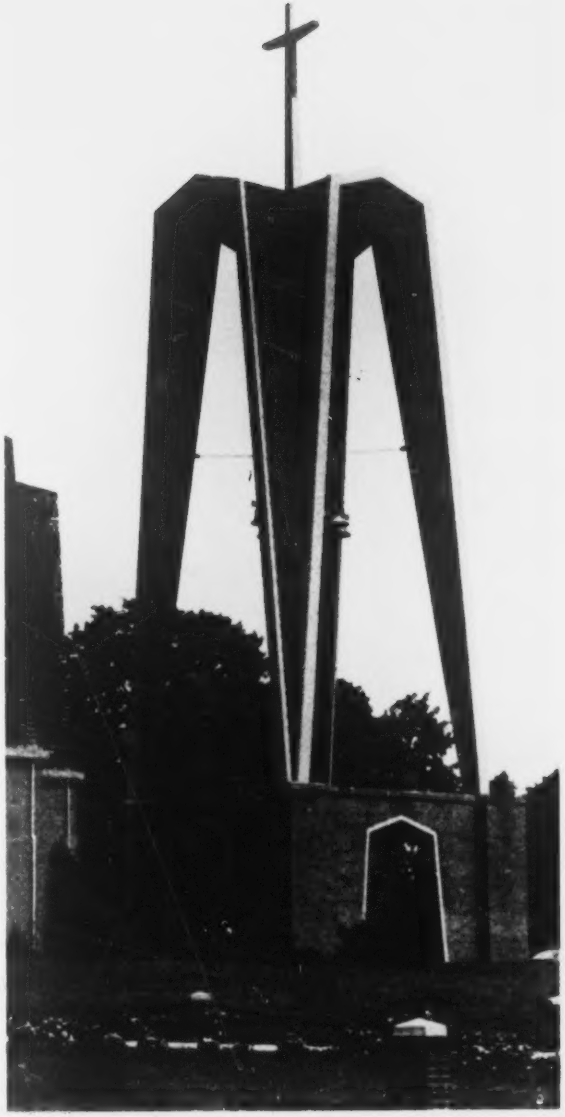
A practical understanding of modern information and communication systems and their impact on human life.

A concentration of study in such a way as to achieve strength in a particular academic area for personal enrichment as well as career preparation.

The sense of civic responsibility that comes from participating in campus and community organizations.

The experience of living and learning together with those of diverse cultural backgrounds in a structured environment that emphasizes caring, trust and friendship through a variety of social, recreational and cultural programs.

The utilization of knowledge and the building of confidence and professionalism through a variety of structured and supervised experiences in the world beyond the classroom.



Hampden-Sydney College

As the tenth oldest college in the nation, older than the nation itself, Hampden-Sydney has been in continuous operation as a four-year liberal arts college for men since January 1776. In its current strategic plan, the College reaffirms its commitment to the belief that a liberal arts education provides the best foundation for the great moral and intellectual challenges of life and leadership. Students choose from 28 majors within the divisions of the humanities, social sciences, and natural sciences, as preparation for direct entry into a professional career or for further professional training in areas such as law, medicine, or business.

Through two centuries, Hampden-Sydney has deliberately remained small, in keeping with the philosophy that the education of young men can best be attained in small classes where students have the opportunity to interact with fellow students and faculty members. The student to faculty ratio is 13 to 1, with an average class size of approximately 22 students. Basic to the success of the College's program is the dedicated teaching faculty, over 85 percent of whom hold earned doctorates in their fields.

At the heart of student life, the Honor Code sets an expectation for personal integrity, trust, and mutual respect that is essential to a sense of community. Student activities are numerous and diverse, including opportunities for participation in student government, newspaper, yearbook, literary magazine, radio station, volunteer fire department, fraternities, community volunteer services, intramural athletics, and nine varsity intercollegiate sports.

Approximately half of Hampden-Sydney's 944 students are from Virginia, with others representing 30 states and several foreign countries. The College actively recruits students from diverse geographic, ethnic, and cultural backgrounds. Hampden-Sydney consistently places in the top five percent of all colleges and universities in the percentage of graduates listed in "Who's Who in America" and has produced numerous leaders for the Commonwealth and nation, including one U.S. President and twelve U.S. Senators. At Hampden-Sydney College, the best of the past and present prepares leaders for the future.

Hampton University

Hampton University was founded in 1868 by Samuel Chapman Armstrong, a 27 year-old Union Brigadier General who sought to provide an "Education For Life" for newly-free Negro men and women. It was one of the first coeducational colleges of its kind in the United States. A small, private, residential, coeducational liberal arts college, Hampton offers educational opportunities to qualified students regardless of race, color, creed, sex or extent of handicap.

Under the university structure, instituted in 1984 by the Board of Trustees, Hampton University is divided into three areas—Hampton Institute, the Undergraduate College, the Graduate College and the College of Continuing Education. This new structure reflects the significant academic growth and diversity of the college as well as its never-ending commitment to educational excellence. The University offers baccalaureate degrees in 47 areas and the master's degree in 17 areas. It emphasizes the liberal arts, science, engineering, humanities, teacher education, architecture and nursing. Hampton University is one of only two colleges in the nation that has been licensed and financed by the Federal Aviation Association (FAA) to offer a degree in airway science. The new fire science program, offered in the College of Continuing Education, is one of seven such programs available in the United States, and the only one of its kind in Virginia.

Hampton's faculty consists of 300 professors, 45 percent of whom hold earned doctorate degrees.

Hampton's faculty is a diverse and dedicated group from across the United States and around the world. A student to faculty ratio of 16 to 1 enables professors to build a rapport with their students and to develop academic programs geared toward individualized instruction. Because the faculty is required by contract to do research, they are able to provide students with a myriad of educational expertise.

Hampton's student enrollment was 5,342 in Fall 1989. These students are a unique, articulate and intelligent group. They rank among the best in the nation. Strong academic programs, a variety of extracurricular activities and a lovely campus attract outstanding students to Hampton University year after year.

Hollins College

Founded in 1842, Hollins is one of Virginia's leading liberal arts colleges with nationally recognized programs in creative writing and psychology, and a strong international focus.

Hollins has produced more Pulitzer Prize winners and published writers proportionately than any college in the country. They include Annie Dillard, Henry Taylor, Mary Wells Ashworth, Elizabeth Forsythe Hailey, Lee Smith, Tama Janowitz, Madison Smartt Bell, Jeanne Larsen, Katie Letcher Lyle, Jill McCorkle and Garrett Epps. In the psychology department, faculty and students are conducting innovative research on memory rehabilitation, stress, and speech therapy. The Hollins Communications Research Institute is one of the world's most successful stuttering treatment centers.

International studies include abroad programs in Paris, London, and Japan; courses in six languages; and an international focus throughout the curriculum.

Through an unusually strong financial aid program, more than half the students receive financial assistance. The average need-based award is $9,250. Local residents automatically receive tuition grants, and Hollins is committed to meeting the full financial need of all admitted applicants.

Eighty-one percent of Hollins faculty hold the highest degree in their field. Class size averages 16 students, and the faculty-student ratio is 1 to 10. Enrollment is about 1,100, representing 38 states and 10 countries.

The Hollins calendar, a 4-1-4 plan, features two 12-week terms and a month-long Short Term in January. During Short Term, students participate in career internships or travel-study programs, or elect to take one intensive course on campus.

Hollins offers an undergraduate program for women with majors in 24 fields. Coeducational master's degree programs are in English/creative writing, psychology, and liberal studies.

The 450-acre campus is located in Roanoke, a metropolitan area of 225,000. Hollins is 10 minutes from a major airport and 20 minutes from the Appalachian Trail.

Institute of Textile Technology

A career in textile manufacturing management requires a solid background in textile technology that must be complemented by leadership and communication skills and the ability to manage rapidly changing technology. The graduate program at the Institute of Textile Technology is designed to provide what will be needed to succeed in a leadership career in this industry —to meet the challenges of the Twenty-First Century.

The common denominators for students entering the program are a sincere interest in the textile industry, intellectual ability and leadership potential. Their educational backgrounds are diverse. Although many students arrive with undergraduate degrees in textiles, ITT also welcomes applications from students with degrees in the physical sciences, business administration, mathematics and the social sciences.

The Institute offers a common core of courses in the textile sciences, analytical methods, business management, and written and oral communications. These courses are supplemented by group technical projects through summer internships; on-site examination and study of facilities of operating textile companies; seminars with outstanding experts from industry and other research laboratories; and close contact with Institute research projects. Each student is assigned a computer equipped with a 20-megabyte hard disk drive, color monitor, printing facilities, and software for personal use until graduation.

ITT's program is unique in other ways. Class size is small—typically 18 or fewer students—and close student-faculty relationships are developed. The graduate program is part of an institution focused entirely on the textile industry. It provides intense interaction with the leaders, concerns, and technology of the industry; participation in state of the art research; and access to the nation's largest collection of textile literature.

Every graduate student receives a generous, non-service fellowship for the nine-month academic year and also is compensated for the three-month research internship conducted during the summer between the first and second year of study. In addition, all tuition and fees are paid from Institute funds. The tuition-paid program, fellowship grant, and summer income provide some financial independence and allow students to devote more time and effort to graduate education.

Like the industry it serves, the Institute of Textile Technology graduate program offers unique opportunities and formidable challenges. The key to making the most of the opportunities and meeting the challenges is commitment —both individual and institutional. If a student is willing to make the commitment, the Institute and its graduate program will help develop the knowledge, skills, and experience required to become a leader in this dynamic industry.

Liberty University

Liberty University, founded in 1971, is an accredited, comprehensive, coeducational institution committed to serious scholarship at the undergraduate and graduate levels. It is divided into two colleges and five schools: the College of Arts and Sciences, the College of General Studies, and the Schools of Business and Government, Communications, Education, LifeLong Learning, and Religion.

Graduate studies are also available through the Schools of Religion, Education, and Business and Government. Programs include the Master of Business Administration, Master of Education with concentrations in Reading and Educational Administration, Master of Arts in Counseling, Master of Arts in Religious Education, and the Doctor of Ministry.

The University offers 75 undergraduate majors in an environment that emphasizes scholarship and Christian principles. The curriculum is designed to keep students current with the technological advances of their society, while maintaining the values that are essential to successful living. This educational philosophy has been a catalyst for the rapid growth of the university. Students come from all 50 states and 46 nations, adding a unique cultural mix to the student body. Graduates from Liberty have been very successful in their fields of study throughout the world, and benefit from the job placement services of the university's Career Center.

The 5,300 acre campus is located in the foothills of the Blue Ridge Mountains of south-central Virginia. The lower campus where the existing buildings are located, currently has 51 buildings, including six classroom buildings and 30 dormitories.

Liberty's extra-curricular offerings include NCAA Division I athletics in 16 men's and women's sports, with the football team competing at the I-AA level. The 12,000-seat Willard May Stadium is already in use, and construction is currently underway for a polyurethane-surfaced outdoor track and a 10,000-seat special events arena. Students with other interests will find a variety of opportunities for campus involvement, from a nationally-ranked debate team to a marching band, from drama to student government. At every level, competition is keen and students will be challenged to excel in an environment conducive to optimal learning.

Lynchburg College

When Joseph and Sarah La Rue Hopwood founded Virginia Christian College (now Lynchburg College) in 1903, they shared a vision that has been the college's primary mission ever since: the development of young men's and women's lives intellectually and morally through an intensely personal process of challenge and support.

Meanwhile, the college's resources and programs have grown immensely. From its beginning as a one-building school with a handful of students, Lynchburg College has developed into a thriving liberal arts and sciences institution with 1,960 undergraduate and 524 graduate students representing 35 states and 16 foreign countries. The scenic 214-acre campus, located in the Central Virginia foothills of the Blue Ridge Mountains, includes 30 buildings with a recurring theme of Georgian architecture.

The college's academic programs now include 45 major and 39 minor areas of study spanning the liberal arts, sciences and professions.

Despite its growth, Lynchburg College has maintained the personal, caring atmosphere that marked its origin in 1903. The faculty includes 148 full-time members and 55 part-time members, for a student-faculty ratio of 13 to one. A major criterion in selecting faculty members is their desire to be directly involved with teaching and nurturing students.

This personal environment is a key to the college's continued commitment to its mission of helping students develop intellectually and morally. During the 1980s, the college spent considerable time and effort on defining ways to meet this commitment in terms of a new and demanding age.

The results have been a globalization of the curriculum, with new emphasis on international programs, such as "Focus on Asia," and on making foreign study possible for students; encouragement of student and faculty work on volunteer efforts so that learning about values complements learning in the classroom; and the creation of programs that reach out into local schools to remove barriers to learning that arise at the elementary and secondary school levels.

The college also has opened opportunities for collaborative work among students, both in and out of classes, with programs such as Habitat for Humanity and the Lynchburg College Symposium Readings, which integrates reading, writing and speaking instruction throughout the curriculum.

Perhaps most significantly, the college is introducing the use of computer technology throughout its curriculum in the form of the Knowledge Initiative. This program, the first of its kind in Virginia and among the first in the nation, requires freshmen in 1990 to own a personal computer compatible with computers provided to all full-time faculty members. The requirement will be phased in year by year to include all students by 1993.

The program is designed to improve the quality of teaching and learning and to enhance the viability of liberal arts education in an increasingly technological, information-based world. Already, students in Lynchburg College psychology classes use computers to conduct experiments and tests, and students in English courses carry on class discussions by entering their comments on computers that immediately flash the words onto screens at each desk.

As the Knowledge Initiative unfolds, all students will begin to use personal computers in carrying out their course work, not only for word processing but also for tutorial programs tailored to specific subjects and classes. The cost of the computer is included in determining aid packages for students with financial need.

Lynchburg College offers a wide range of aid programs based on financial, academic and other criteria. The Hopwood Summer Scholarship Program, for example, offers 150 rising high school juniors each year the chance to experience a week of college-level classes on campus and to earn a scholarship. The Westover Honors Program provides an advanced curriculum and full scholarship aid to a select group of students.

Mary Baldwin College

Mary Baldwin College, a liberal arts college for women related to the Presbyterian Church (U.S.A.), offers the Bachelor of Arts degree. Founded in 1842 as Augusta Female Seminary in Staunton, it became a junior college in 1916 and a four-year college in 1923, at which time the name was changed to Mary Baldwin College.

Mary Baldwin College offers 27 majors and 24 minors as well as ROTC, pre-med, pre-law, and teacher certification programs. Programs run the gamut from traditional liberal arts disciplines to emerging fields such as computer science, marketing communications, and human resource development. The College has a very active Asian Studies program featuring an exchange program with Doshisha Women's College, one of the premier colleges in Japan, year-long study at Kansai University in Osaka, and externships with Japanese politicians and businesses in Tokyo. In 1988-89, 100 Japanese students studied in programs at MBC, including an innovative Cultural Immersion program for students attending American Colleges.

MBC embraces the concept of education geared to promote individual growth and has one of the highest proportions of custom-designed majors in the state. It has formal agreements with Washington University leading to a degree in engineering, with the University of Virginia leading to a 5-year BA/M.Ed, and with Vanderbilt University leading to a 5-year BA/MSN in nursing.

Recognizing the role of technology in the lives of graduates, MBC has implemented the highest dollar value of instructional technology per student of any private college in the Commonwealth. Students may work at computer work stations in every classroom building on campus. There are 20 mainframe terminals and 60 microcomputers for students along with desktop publishing, multi-color plotters, and a vast assortment of sophisticated software. Each student is issued a free "starter pack" of useful software. The innovative Communications Institute serves as a remote studio for a commercial TV station. Students use its state of the art printed material, instructional videos for private firms, news releases for commercial TV stations, and video yearbooks and diaries for alumnae.

MBC enrolls 650 students of traditional age in its on-campus program, but it also enrolls 600 students in two non-traditional programs. The Program for the Exceptionally Gifted was established in 1985 with the aid of a $1.2 million grant from the Jessie Ball duPont Foundation. It currently enrolls 50 young women from across the country who have shown an ability to do college-level work after eighth grade. The students participate in a five-year program leading to both high school and college graduation. PEG graduated its first students in 1989. The Adult Degree Program, which has grown steadily since its inception in 1977, enrolls over 500 men and women in a nonresidential, individualized degree program which permits a student to work independently. In all, Mary Baldwin enrolls 1,282 students in regular credit courses as well as an additional 2,300 in continuing education and summer programs.

Marymount University

Marymount University is a coeducational independent university related to the Catholic Church enrolling more than 2,900 students in undergraduate and graduate programs. At the undergraduate level, the University focuses on the education of men and women and enrolls approximately 1,887 students. Graduate programs are also coeducational and enroll about 1,047 students.

Marymount considers itself a comprehensive university with a strong emphasis on liberal arts and career preparation in marketable fields. Each graduate of its undergraduate programs has completed an internship in a corporate, governmental or social service setting in the Washington, D.C., or Northern Virginia area.

The main campus of the University is located in residential North Arlington. Nearby is the Academic Computer Center, located at the Spout Run Campus. Off-campus instruction is offered at the Pentagon, at several corporate sites in McLean, Reston, Sterling and at several hospitals and medical centers in the area.

Marymount University was founded in 1950 by a Catholic religious order internationally known for development of schools for women. In 1960 the College was incorporated as a Virginia educational nonprofit organization. Governed by a board comprising lay and RSHM members, the trustees include more than 30 alumni, attorneys, bankers, businessmen and women, educators and representatives of other professions. Members demonstrate interest in guiding Marymount's academic offerings while at the same time assuring its financial and legal health. In 1986, with the continuing growth of Marymount's academic offerings at both graduate and undergraduate levels, the Board of Trustees adopted a change in nomenclature from Marymount College of Virginia to Marymount University effective in the fall of that year.

Marymount offers the M.A., M.B.A., M.Ed., M.S.N., B.A., B.B.A., B.S., B.S.N., A.A., and A.A.S. degrees. Undergraduate programs are offered in 32 fields. The University is organized into four Schools: Arts and Sciences, Business Administration, Education and Human Services, and Nursing. Marymount is a member of the Virginia Foundation for Independent Colleges.

National Business College

National Business College, founded in 1886, is the oldest private college in Virginia dedicated to career training. Accredited by the Association of Independent Colleges and Schools, National Business College offers career programs in fields from health care to business.

There are three distinct levels of educational experience offered at National. Each level prepares students for specific career opportunities. Diploma programs which provide a solid educational foundation are available for students who desire to enter a career in as short a time as possible. Associate Degree programs may be accomplished in two years and allow graduates a wide range of employment opportunities in their major fields. National Business College has been authorized to enroll students in a bachelor's degree program (offered at the main campus in Roanoke), which will allow associate degree graduates the opportunity to continue their educational pursuits and enhance their career advancement opportunities.

Programs are offered both day and night and are available in these fields:

Diplomas in Accounting, Business Administration, Data Processing, Secretarial, Administrative Secretarial, Fashion Merchandising.

Associate in Arts in: Management, Marketing, Computer Science, Computer Applications Management, Professional Secretarial-Executive, Professional Secretarial-Legal, Professional Secretarial-Medical, Court and Conference Reporting, Office Administration, Word Processing Administration, Medical Administrative Assistant, Fashion Merchandising Management, Travel and Tourism.

Bachelor of Business Administration in Accounting, Management, and Marketing.

All programs at National are career focused. Program requirements and course offerings are designed to provide students greater knowledge in their academic field. The faculty strives to make course instruction relative to the career that each student seeks. Valuable and practical business experience is gained through the use of office equipment provided at the college. National's Employment Center plays a vital role in teaching students job search skills and assisting students in career development.

National's main campus is located in Roanoke. Additional campus sites serve the communities of Bluefield, Charlottesville, Danville, Harrisonburg, Lynchburg and Martinsville.

National operates a woman's housing complex in Roanoke which can accommodate 200 women. A cafeteria and leisure center are available as a part of this complex.

National Business College attracts a diverse mix of students. With a student teacher ratio of 12-1, students enjoy individualized attention. The college faculty and staff take a personal interest in the students as they help them learn and grow intellectually and professionally.

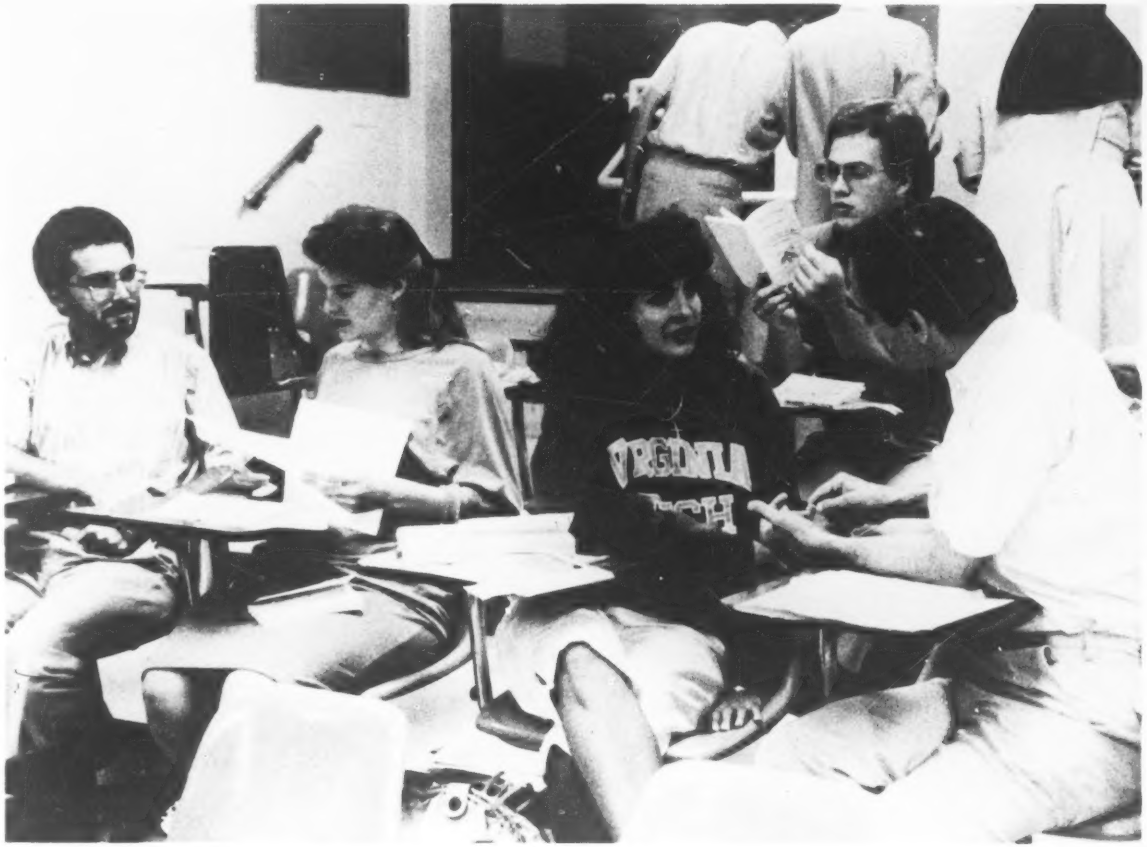
Notre Dame Pontifical Catechetical Institute

The Notre Dame Institute, a graduate school for religious studies, is located in Arlington, Virginia, a suburb of Washington, D.C. The charter for this catechetical institute is stated in the General Catechetical Directory: "Higher institutes for training in pastoral catechetics should be promoted or founded, so that catechists capable of directing catechesis at the diocesan level, or within the area of activities to which religious congregations are dedicated, may be prepared. These higher institutes...ought to function as a university so far as curriculum, length of courses, and requisites for admission are concerned" (GCD 109).

His Eminence John Cardinal Wright, the founder of this institute, pointed out frequently in his public discourses that trained and orthodox catechetical teachers are the great and growing need of the Catholic Church in the United States. He saw a new and fruitful apostolate for religious who are trained catechists, but especially as moderators of religious education on the parish and diocesan levels.

The Notre Dame Institute sees its catechetical mission to include the formation and training of clergy, religious and laity, who are called to the work of evangelization and missionary endeavors in areas of missionary need.

The Institute sees as its mission the training of religious and lay leaders of the Church in the twentieth century, not only in the area of pastoral catechetics, but also in spirituality, liturgy and pastoral ministry. The Institute welcomes leaders and future leaders in religious communities as well as other houses of formation. Also there is a need to provide sound courses in theology and spirituality for those people who desire only to deepen their knowledge of the Catholic Faith and to do that among scholars and students who are in, and who enjoy, union with the Magisterium of the Catholic Church.



All the courses offered at the Institute have a catechetical dimension, that is, they are oriented to enable the student to more effectively and positively transmit the Catholic Faith "that comes to us from the Apostles."

Presbyterian School of Christian Education

The Presbyterian School of Christian Education is a graduate center for educational ministry established in 1914 to "prepare men and women for service in church vocations with emphasis upon the educational work of the church at home and abroad." Although it is one of the theological graduate schools of the Presbyterian Church (USA), it is a unique, ecumenical institution serving all Presbyterians and more than 20 denominations.

Students in the small and select student body of approximately 100 represent 25 states and 11 foreign countries. Graduates are in demand as directors of Christian education in local churches, as church educational administrators, youth ministers, recreational and camp directors, early childhood education teachers, and other service-oriented occupations. For several years there have been more positions available than there have been graduates to fill them.

The Master of Arts degree with emphasis on Christian education is the central two-year degree program, although students and graduates of accredited seminaries may receive the degree in one year. A Master of Arts degree in Christian education and social work is offered in cooperation with Virginia Commonwealth University. There is also a doctoral program in religious education. The Doctor of Education degree at the Presbyterian School of Christian Education is a professional degree. Candidates must have a minimum of two years' professional experience in Christian education in addition to a master's degree.

The graduate programs provide both skills training and a strong theoretical foundation for educational decision-making. The curriculum integrates three areas of study—biblical, theological and educational. Nearly one-half of each program consists of required courses and the remaining coursework is composed of electives chosen by the student and faculty advisor to meet the student's career goals and interests. Theory and practice are equally emphasized.

Specialized areas of ministry at the School include the Center on Aging which helps church leaders minister to older adults; the Center for Childhood Education; a Video Education Center, and a recreation program for the surrounding community. The Continuing Education Center holds events throughout the year.

Protestant Episcopal Theological Seminary in Virginia

The Protestant Episcopal Theological Seminary in Virginia was founded in 1823 to educate men for the ministry. It now seeks to prepare both men and women for leadership, either as clergy or lay people, in the church and the world. The Seminary offers programs leading to the degrees of Master of Divinity, Master in Theological Studies, Master of Arts in Christian Education and Doctor of Ministry.

The Seminary is a residential, coeducational theological school of the Episcopal Church providing theological education for individuals interested in preparing for the ministry or other areas of service to the church. The wide variety of required and elective courses in the curriculum demands a diversity of teaching methods. At the same time independent work by students under supervision of faculty members is encouraged. Field education, required of all students, involves both students and faculty in a diversity of public service activities.

The Seminary has maintained a center for continuing education since 1967 for the "mid-career" training of individuals. The Seminary is a member of the Washington Theological Consortium. This consortium is intended to increase cooperation in theological education in order to take advantage of the resources of the Washington metropolitan area.

Considerable emphasis is placed upon individualization of education through close student-faculty relationships, possibilities for independent study, and the opportunity for students and their advisors to create individualized programs of study. The Seminary serves a wide range of students including those of other nationalities. In the midst of a growing urban area, the Seminary uses its geographic location to involve students in the major issues of urban life.

Faculty is encouraged to maintain a continuing interest in research and study. Independent programs of study provide students with the opportunity for individual research.

Randolph-Macon College

Randolph-Macon is an independent, coeducational, liberal arts college. Founded by Methodists in 1830, the College maintains a relationship with the United Methodist Church. Through this living tie the College draws strength from a religious tradition that nurtures creative social change and personal accountability.

At Randolph-Macon College the liberal arts constitute a comprehensive educational opportunity. The curriculum includes exposure both to broad perspectives and specific concepts. Students explore the natural and social sciences, the arts and the humanities, while they also achieve a deeper understanding of the single discipline in which they major. They are challenged to communicate effectively, to think analytically and critically, to experience and appreciate the creative process, to develop qualities of leadership, and to synthesize what they know with who they are. They are guided in this endeavor by a faculty of teacher-scholars who are dedicated to the liberal arts and active in their professional disciplines and in the extracurricular life of the campus.

At Randolph-Macon the maturation and testing of the skills, values, and character required for a lifetime of challenges extends beyond the classroom. Students are encouraged to meet with faculty both socially and intellectually, and they have the opportunity to participate in a variety of extra-curricular activities. Interaction within the College community is assured by a residential environment and an enrollment of approximately 1,100.

Students become involved in research programs with faculty and special courses designed for the four-week January term. An internship program provides diverse opportunities for students to gain practical experience in potential career fields. An approved program for Virginia teacher certification is offered. The College offers study abroad programs in England, France, Germany, and Spain.

The College is primarily residential and draws approximately 60 percent of its students from Virginia. The remainder come from 29 states, the District of Columbia, and 13 foreign countries. Women comprise 53 percent of the students. Seventy percent of the students are graduates of public schools. The enrollment in 1989-90 was 1,120.

Randolph-Macon Woman's College

Randolph-Macon Woman's College offers a liberal arts education especially directed toward women in a setting where living and learning are integrated and where students are prepared for meaningful personal and professional lives. All members of the college community contribute to this enterprise. The faculty are committed to excellence in teaching and advising, to continued learning and research, and to providing the challenges and support requisite to the intellectual development of each student. They and others in the community, men and women alike, act as role models, mentors and friends, dedicated to the personal and academic success of the Randolph-Macon woman.

The curriculum stresses both breadth and depth in learning through the general education guidelines and the major and minor programs. A Randolph-Macon education is designed to foster a wide range of abilities and attitudes that will serve the graduate well in whatever personal and professional roles she adopts. These educational goals include the following:

- the ability to analyze and evaluate information;
- a capacity for writing and speaking with clarity and precision;
- an understanding of the complexity, possibilities and limitations of knowledge;
- creativity and imaginative approaches to problem-solving;

- an awareness of the roles and achievements of women, past and present;
- an appreciation for values and a respect for diversity of ideas and cultures;
- a global perspective, based on a sense of the interdependence of all nations;
- a lifelong joy in learning and thinking.

Learning at Randolph-Macon takes place in a residential community that inspires each student to set high levels of expectation for herself. Campus life is grounded in the Honor System, which fosters personal integrity and mutual trust. As students study and live together, they are expected to be tolerant, to respect others, and to evolve a strong sense of ethical and social responsibility. They are encouraged to become leaders on campus and full participants in a community that seeks to provide them with a model of a society in which women as well as men hold positions of authority and responsibility.

Through all their experiences at the College, students are challenged to think ambitiously and realistically about their futures in a world that offers them ever-increasing opportunities for leadership, responsibility, and service.

Regent University

Regent University, incorporated in 1977 as a non-profit educational corporation, is an idependent graduate school. The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools and approved by the State Council of Higher Education for Virginia to award the master's degree and Juris Doctor degrees. The School of Law has provisional approval from the American Bar Association.

President Bob G. Slosser is a journalist, the author of several books, including *Changing the Way America Thinks*, and is the former Assistant National Editor of the New York Times. He explains that "the University's graduate-based program places primary emphasis on academic excellence and the application of biblical principles to all of life. The University concentrates on disciplines that play a dominant role in the world—those areas that significantly affect the way man thinks and thus conducts his affairs."

Regent University presently includes five colleges: the College of Administration and Management, the College of Communication and the Arts, the College of Education and Human Services, the College of Law and Government, and the College of Theology and Ministry. A master plan for the University projects the addition of several graduate schools with an enrollment of 3,000 resident students and 12,000 students in various extension programs by the end of the decade. On-campus enrollment in Fall 1989 was 787.

The Regent University campus includes 200 acres near the intersection of Interstate 64 and Indian River Road in Virginia Beach. It adjoins the "International Communications Center" of the Christian Broadcasting Network, founded in 1961 by Dr. M. G. "Pat" Robertson, who is also founder and chancellor of the University.

The campus has as its centerpiece a 152,000 square foot library and classroom building, housing three of the colleges and both the university and law libraries. The libraries include some 250,000 bound volumes, more than one million microforms, and 1,750 audiovisuals. The collections are unique in their emphasis on Christian scholarship in all areas of the curriculum. Automation is used extensively, providing students and faculty with access to information far beyond the confines of the campus. The libraries are an integral part of each graduate program, supporting with excellence the instructional, research, and service aspects of the University's academic endeavors. Two other colonial buildings house the remaining colleges and administrative offices. A 112-unit student housing complex completes the campus.

The student body represents 50 states, 14 foreign countries, and 25 denominations, and hold undergraduate degrees from 384 colleges and universities. The median age of the student body is 30 years.

The faculty of Regent University are exceptional in terms of teaching skills and professional attainment, as well as spiritual and personal strengths. Eighty-eight percent hold a Ph.D. or the highest degree in their field. Through innovation, excellence, and integrity, Regent University is dedicated to preparing students to impact their world professionally and personally.

Roanoke College

Roanoke College was founded near Staunton in 1842 by two pioneer Lutheran clergy, David F. Bittle and Christopher C. Baughman. Originally known as the Virginia Institute, the school was chartered in 1845 and moved to Salem in 1847, when it was renamed the Virginia Collegiate Institute. In 1853 the Virginia legislature granted the institution a charter as Roanoke College, raising it to the rank of a college. The college is related to the Evangelical Lutheran Church in America and is a member of the Virginia Foundation of Independent Colleges.

Since its founding, the college has offered a program of study grounded in the liberal arts. As a coeducational, baccalaureate-level institution with over 1,600 students, Roanoke College has a resident student body of over 900. More than half of all students enrolled are Virginians. Large student populations also come from Maryland, Pennsylvania, New Jersey, New York, and Connecticut.

The college offers programs leading to the Bachelor of Arts and Bachelor of Science, as well as the Bachelor of Business Administration, degrees. Roanoke observes an "early semester" calendar which includes two four-month terms and an optional May Travel Term.

There are currently 26 majors offered, and 21 minors; they are administered through 12 different departments. In addition to majors in most of the traditional liberal arts, several interdisciplinary majors are offered (International Relations, Criminal

Justice) plus several in more specialized areas, such as health and physical education, and computer science and statistics. The College maintains a strong undergraduate emphasis in the natural sciences and in mathematics. In the social sciences, students combine strong academic preparation with internship possibilities. A concentration in social work is offered, including a Center for Community Research which offers the Roanoke College student opportunities to complete community survey and information analysis. The Center increases student as well as faculty involvement in community projects. Other concentrations are available in accounting, athletic training, communications, computer science and marketing, as well as pre-professional preparation in medicine, dentistry, engineering, law and ministry.

In the Fall of 1986, the College began an Honors Program which replaces the usual distribution of general requirement courses for Honors students. The program will serve as a model curriculum by meshing the subjects normally included in general requirements into a sequence of interdisciplinary courses.

In the fall of 1985, the faculty began work to identify a new "general education curriculum"—a series of courses to stress clear thinking and communication, the classics and global education. The implementation of the new curriculum has begun in Fall, 1989.

The college continues its focus on the special needs of freshmen with preregistration of all students and the establishment of a Learning Center and a centralized peer-tutoring facility. A career counseling and placement center is an integral part of the counseling service as well.

Roanoke College emphasizes the "total teaching" concept in which teaching is seen not merely as a classroom activity, but as the total effect of teachers interacting with students—as instructor, as advisor, as scholar, as conveyer of values. Faculty members are encouraged by strong programs of support to engage in scholarly activities, especially those involving students. The faculty development program, New Dimensions in Total Teaching, provides awards for improvement in teaching.

Several professorships have been established at the College which enhance classroom instruction, including the John P. Fishwick Professorship in English and the H.L. Harris Professorship in Business Administration and Economics. The Jordan-Trexler Endowment in Religion has enabled the establishment of the Center for Church and Society, which offers educational programs to demonstrate the role of religion in society. Lecturers are provided for the classroom and for the community through the Henry H. Fowler Public Affairs Lecture Series.

Roanoke College plans no major modification in instructional purpose or function in the next decade. Enrollment is near capacity and is expected to remain stable.

Saint Paul's College

Saint Paul's College, a private, church-related, co-educational institution with a Christian heritage, sustains an environment in which the attributes of integrity, objectivity, resourcefulness, scholarship and responsible citizenship are emphasized.

Its liberal arts, professional and pre-professional programs prepare students for careers and graduate studies in Humanities, Social Sciences, Education, Business, Mathematics and Natural Sciences.

Accordingly, the mission of the College is to develop an intellectual atmosphere that meets the broad range of needs of people seeking admission. Its mission is also to provide leadership in an expanding social and technological society through the utilization of the creative resources of its faculty and the inquiring minds of its students.

In addition to providing the best possible learning environment for students, the College offers a scope of activities designed to anticipate and to fulfill the intellectual, cultural and social needs of its community. This is advanced through formal classroom and laboratory experiences, off and on campus work study programs, internships, special projects, faculty-student research, community-oriented seminars and through the contributions of its alumni.

The College is committed to innovative approaches in the teaching-learning setting that expand the educational horizons for all students, and to program flexibility serving their diverse needs. In a cooperative quest to meet the demands of an ever-growing variety of complex technological skills, faculty and students are encouraged to experiment, explore and develop new approaches to learning that will result in the acquisition of knowledge and the discovery of truth.

The academic and student services programs are designed to affirm the College's beliefs in the infinite worth of each student as a human being and in the belief that the development of the whole person is imperative.

To these ends, the total resources of the College are committed to the development of students who will be equipped to live effectively in a global society.

Saint Paul's College admits any person without regard to nationality, ethnic origin, religious affiliation or sex.

Shenandoah College and Conservatory

Shenandoah College and Conservatory, located 72 miles west of Washington, D.C. in the Shenandoah Valley, grants degrees in nearly 50 programs. Founded in 1875 in Dayton, the College moved in 1960 to its Winchester campus that now covers 61 acres and contains 13 modern buildings. Shenandoah also owns the historic John Kerr Public School building in downtown Winchester; the century-old structure is restored to its original grandeur and now houses the College's health and community arts program.

Shenandoah has four schools: the Conservatory, Arts and Sciences, and The Eleonor Wade Custer School of Health Professions, and the Harry F. Byrd Jr. School of Business. Associate degrees are offered in nursing, respiratory care and piano technology.

The College's four-year baccalaureate programs include a variety of music studies, elementary and secondary education, theater and dance, English, arts management, business administration, the sciences, nursing, communications, computer information systems, philosophy/religion, physical education, history, mathematics, music therapy and respiratory care.

At the graduate level, Shenandoah offers master's degree programs in music, conducting, music education, business administration, computer information education, reading specialists, and physical therapy.

Shenandoah is committed to the total development of its students. A balance of academic, cultural, spiritual, and social activities creates a fertile ground for each student's growth and self-realization. A college education can be the springboard to a satisfying career and lifestyle. At Shenandoah, the process of learning is a satisfying experience as are the rewards of learning.

Shenandoah also stresses a close student-teacher relationship; the student to faculty ratio is 9 to 1. The student population of approximately 1,000 is about 40 percent men and 60 percent women from all social and economic levels. More than 90 percent of the students receive financial assistance.

Students come from more than 30 states and 18 foreign countries. About one-third of them are from a 60-mile radius and another third are from Virginia and the nearby tri-state area of West Virginia, Maryland and Pennsylvania.

Shenandoah College and Conservatory is affiliated with the United Methodist Church. It is a member of, or accredited by, a number of regional and professional associations, including the Southern Association of Colleges and Schools, the Virginia Department of Education, the National Association of Schools of Music, the National League for Nursing, the Council on Education of the American Medical Association, the Virginia Board of Nursing, the University Senate of the United Methodist Church, the National Association for Music Therapy, the National Collegiate Athletic Association, the Association of American Colleges, and the National Association of Independent Colleges and Universities.

Southern Seminary College

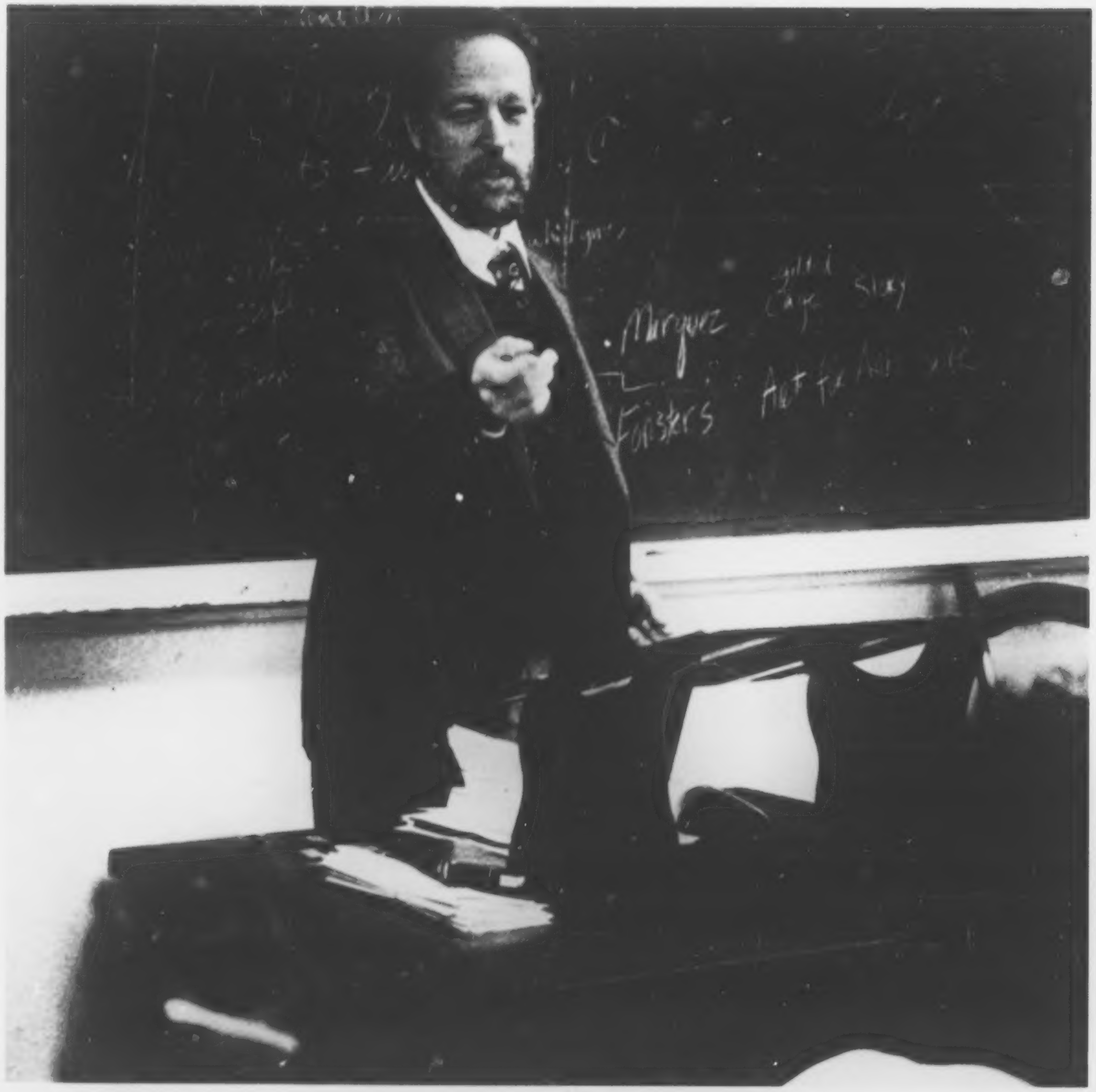
Southern Seminary College is a private, nonsectarian, two-year college with an enrollment limited to 300 women.

Founded in 1867, Southern Seminary is unique in Virginia. Southern Seminary plays a special role and adds a distinctive choice for young women considering the educational opportunities available to them in the Commonwealth.

The college offers two degree programs: Associate in Arts and Associate in Science. Majors include liberal arts, animal science, business, interior design, early childhood education, equine management and physical education. Certificates in horsemanship may also be earned in conjunction with another degree.

A faculty to student ratio of 1 to 9, an innovative mentor system which teams instructors and second-year students with freshmen, dedicated teachers, and a strong core curriculum in the liberal arts make the students' transition from high school to college personal and comfortable. A nationally acclaimed riding program helps develop physical and leadership skills.

The mission of Southern Seminary is to provide educational opportunities of the highest quality in an atmosphere of concern for each student's growth intellectually and personally. Southern Seminary fully intends to remain a small, two-year college with a program responsive to the special and changing needs of today's young women.



Sweet Briar College

Sweet Briar College, an independent college founded in 1901, has as its mission "to prepare women to be active, responsible members of a world community." To that end, Sweet Briar's curriculum is based in the traditional liberal arts and sciences. The College offers Bachelor of Arts or Bachelor of Science degrees in 42 major fields, the Management Certificate, and the option for self-designed majors. The Honors Program, beginning in the freshman year, allows the student of superior ability to earn the Honors Degree.

Leadership opportunities, internships, and career planning are important aspects of the student's personal development. The College has a wide geographic, ethnic, and socio-economic representation; students come from more than 41 states (28 percent from Virginia) and 19 foreign countries. About 25 nontraditional-aged women are enrolled in the Turning Point Program. The community atmosphere of the College is enhanced by the large number of the faculty who live on campus. About 98 percent of the students live in one of the eight residence halls and two small houses, one of which is a language house.

The Bachelor of Arts and Bachelor of Science degrees are offered in anthropology, art (history or studio), biology, chemistry, classical civilization, dance, economics, English, English and creative writing, environmental studies, French, German, government, Greek, history, Latin, mathematics, mathematics-computer science, modern languages, music, philosophy, physics, psychology, religion, sociology, Spanish, and theater arts. Interdepartmental majors may be taken in American history and literature, biochemistry-molecular biology, British studies, economics-computer science, French studies, German studies, Hispanic studies, international affairs, Italian studies, mathematical physics, mathematics economics, political economy, and pre-engineering studies. Special programs exist in arts management, Asian studies, business management, European civilization, international studies, and public administration. A student may design an interdisciplinary major focused on a topic of special interest or may construct an individualized major. Although there is no major in education, students are able to meet certification requirements for early childhood, elementary, and secondary teaching in states that are party to the interstate Certification Compact by taking appropriate courses and by practice teaching in the campus school, local elementary and high schools.

Sweet Briar College offers cooperative management programs with the McIntire School of Commerce at the University of Virginia and with the College of Industrial Management at Georgia Institute of Technology. Dual-degree programs in engineering are offered in cooperation with Georgia Institute of Technology, Washington University in St. Louis, or Columbia University; a 3-2 dual-degree program in occupational therapy is offered with Washington University in St. Louis.

The College follows a 4-1-4 calendar, with fall, winter, and spring terms. During the one-month Winter Term, students may elect intensive courses, independent projects, or internships, on campus or elsewhere.

The College is internationally known for the Sweet Briar Junior Year in France Program, through which students in leading colleges and universities study at one of the campuses of the University of Paris. The Sweet Briar Junior Year in Spain (University of Seville) and Junior Year in England (Royal Holloway College of the University of London) follow the same pattern. Two places are available annually for Sweet Briar students at the University of Oxford. Other foreign study opportunities include an exchange program with the University of St. Andrews, in Scotland, and approved programs in Italy and Germany. Other arrangements for off-campus study include an Environmental Junior Year, the Washington Semester at American University, exchange programs with neighboring Virginia colleges, and summer programs at St. Anne's College, Oxford, and in Münster, West Germany.

Sweet Briar's strong tradition of excellent teaching is enhanced by a faculty actively engaged in research and publication. There are 70 full-time faculty members. More than 89 percent hold the doctorate or the appropriate terminal degree. Almost all teach freshman courses; about one-third serve as advisors to freshmen. Department chairmen serve as advisors to junior and senior major students. The student-faculty ratio is about eight to one, and the average class size is 12.

The College has excellent library resources of more than 200,000 volumes, as well as special libraries in art, music, education, and the sciences; 960 current periodicals and large holdings in bound periodicals, microfilm and microprint. Sweet Briar's library is also linked by computer to two other college libraries and to the municipal library in Lynchburg.

Sweet Briar offers financial aid to all admitted students with demonstrated financial need, and meets 100 percent of that need. About one-third of the student body receives need-based aid, and over 75 percent of all students received some form of financial aid in 1989-90, including grants, loans, and work-study awards; the average award was more than $8,000. In addition, merit awards of several kinds are available, including the Founders' ($6,000 in 1989-90), Sweet Briar ($3,000 in 1989-90), and Pannell ($1,500 in 1989-90) scholarships. Renewable Commonwealth Scholarships offer qualified Virginia students a comprehensive fee matching that of any Virginia public institution of higher education. Several other academic awards are available.

Union Theological Seminary in Virginia

Founded in 1812, Union Theological Seminary in Virginia is a pioneer in theological education in America, training persons whose vocations call them to serve the church with vision and leadership. The seminary is one of eleven theological institutions of the Presbyterian Church (U.S.A.).

Since its beginnings, Union has provided committed leadership for congregations, overseas missions, church agencies, and for the tasks of Christian scholarship. The clear focus of the seminary's classical curriculum, its internationally-known faculty and gifted student body, its commitment to study within a residential community, and generous financial assistance all combine to provide an educational experience which encourages persons towards their highest potential for ministry.

Union students, along with faculty and staff, form a coeducational, multi-denominational, and international campus community. Twenty-seven percent of the institution's students are women: over half are married and accompanied by their spouses and children: and over two-thirds pursue their ministerial vocation following previous careers. Students attend Union from nearly 40 states and eight foreign countries. While most are Presbyterian, Union students represent 30 other denominations.

Union offers a basic program, graduate studies, a program of continuing education, and public access to its extensive library holdings. The basic three-year course of study leads to a Master of Divinity degree. Field education is integrated into the learning experience so that students can demonstrate the knowledge and skills they are mastering in the classroom. The seminary has an extensive network of church-related contacts around the globe which assists students with these practical pastoral experiences. The graduate program offers studies leading to the degrees of Master of Theology and Doctor of Philosophy. A doctoral degree in practical theology has recently been added as a new component of Union's graduate program.

The Doctor of Ministry degree is designed for ministers who wish to continue their pastoral work while earning an advanced degree. Other study programs, both resident and non-resident, provide ministers and lay persons opportunities to enhance their professional development throughout their careers.

Among Union's professional contributions is its publication of *Interpretation*, A Journal of Bible and Theology. Edited exclusively by Union's faculty, it has the largest circulation of any biblical-theological quarterly in the world and is mailed to subscribers in every state and in more than 90 foreign countries.

The University of Richmond

The University of Richmond, founded in 1830, is an independent, highly-selective, primarily undergraduate liberal arts institution composed of: Richmond College for undergraduate men and Westhampton College for undergraduate women in the Arts and Sciences, the T.C. Williams School of Law, The E. Claiborne Robins School of Business (and its Richard S. Reynolds Graduate School), and University College, the continuing education division. Though independent, Richmond maintains its historic ties with the Virginia Baptist General Association.

Richmond offers bachelor's degrees in the traditional liberal arts and sciences disciplines, plus business administration and master's degrees in business administration, the humanities, education and several of the traditional disciplines in the liberal arts and sciences. In addition, the University offers a Juris Doctor degree through the T.C. Williams School of Law. Richmond, in remaining small and sharply focused, concentrates on fostering a climate of academic excellence.

The coordinate structure of Richmond offers the advantages of a coeducational campus along with the benefits of small, separately administered undergraduate colleges. For the faculty, teaching is the first priority, but the faculty is also actively engaged in scholarship and research, as well as important community service.

Located on a 350-acre picturesque campus just six miles west of the heart of the city, the University of Richmond provides a diversity of cultural activities and other programs open to the public. University College, the Women's Resource Center, and the Management Institute serve individuals in the community, as well as community business organizations.

Enrolling an ever-broadening constituency, Richmond's students come from all over the country and particularly from the area east of the Mississippi. About 20 percent of the 1989 freshman class are Virginia residents. The class average SAT score was 1214. The 1989-90 full-time and part-time enrollment for undergraduate and graduate students totals 4,909. Its alumni, now numbering 25,000 live in every state and 50 foreign countries.

Virginia Intermont College

Virginia Intermont is a private, coeducational undergraduate college, offering 16 four-year programs leading to the Bachelor of Arts degree and four two-year programs leading to the Associate in Arts degree.

Founded in 1884 as the Southwest Virginia Institute, Virginia Intermont became identified with the junior college movement in 1910 and was the first two-year institution to be accredited by the Southern Association of Colleges and Schools. Four-year programs leading to the B.A. degree were initiated in 1970.

Virginia Intermont has declared its mission as a liberal arts institution providing students with opportunities for critical thinking, creativity, oral and written communication, and cultural appreciation. A recently implemented common core curriculum was developed by the faculty to enhance the well-rounded "working" education that is crucial to graduates in adapting to a changing society.

With a student-to-faculty ratio of 11 to one, Virginia Intermont affords its students personalized classroom attention that encourages participation in the learning experience. Bachelor of Arts programs are offered in ballet, biology, business administration, education, English, fine art, history/political science, horsemanship, liberal arts, medical technology, music and church music, paralegal studies, photography, religion, social work, and theatre arts. Associate in Arts programs are offered in allied health, general studies, graphic arts, and word processing/secretarial studies.

Although Virginia Intermont enrolls students each year from approximately 35 states, its primary service area is Virginia and the Eastern Seaboard. Increasing numbers of students from the areas around Bristol, Tennessee-Virginia are being served.

The College is affiliated with the Baptist General Association of Virginia, but approximately 20 denominations are represented in the student body of about 520.

Virginia Union University

For the past 125 years, Virginia Union University has earned a reputation as an institution where students can both learn and develop their leadership abilities.

As a result, the University has produced scores of talented and committed educators, physicians, ministers, politicians, lawyers, businessmen and businesswomen, scientists, community and civic leaders, and athletes whose achievements and contributions have benefitted themselves, their families, communities, and the world community. This success over the years provides the university with a proud history and record upon which to build and prepare future generations.

Virginia Union's mission from the beginning has been to provide Black Americans and others with the knowledge, skills and attitudes needed for the enrichment of their own lives and of the communities in which they will live and serve. With the aid of outstanding teaching and enlightened guidance, the University's goal is to provide students with a solid foundation in the liberal arts and sciences. It accomplishes this goal by encouraging scholarly inquiry and freedom of discussion as necessary components for developing excellence, values, and a sense of personal worth.

The University's academic programs are designed to serve students interested in pursuing careers in the arts and sciences and the professions. The University offers more than 20 undergraduate majors which are distributed through five academic units—the Division of Education and Psychology; the Division of Natural Sciences and Mathematics; the Division of Humanities; the Division of Social Sciences; and the Sydney Lewis School of Business Administration.

In addition, the Graduate School of Theology offers a master's degree program, a Doctor of Ministry program and the opportunity to study at the Richmond Theological Center, a consortium whose members include the School of Theology of Virginia Union, Union Theological Seminary in Richmond, and the Presbyterian School of Christian Education.

The students at Virginia Union may do independent study work and may also participate in major programs of Teacher Education, Social Work, Dual Degree Engineering and Pre-Law.

The University shows its community commitment through its newly created Center for Community Services (CSS). While building upon the city-wide Community Learning Week activities held each January in Richmond, the Center allows students to be involved in community projects. Most importantly, the Center provides students with "hands-on" experience in public policy and community action. Other components of the University's community outreach are its Center for Teacher Effectiveness, its Center for Black Enterprise and its Co-op Education Program.

The twin pillars of Virginia Union's vision have been and remain "Academic Excellence" and "Leadership Development."

The vision is that by 1991 Virginia Union University will improve upon its position as a leader among liberal arts colleges and universities in the nation.

Virginia Wesleyan College

Chartered in 1961, Virginia Wesleyan is a coeducational, liberal arts college related to the United Methodist Church. The liberal arts and church-related heritages of the college complement each other and define the values around which the institution has been built. The village concept within the overall architectural plan of the campus supports an institutional commitment to student-faculty dialogue.

Located on a 300-acre campus astride the Norfolk/Virginia Beach city line in the center of one of the nation's most rapidly growing metropolitan areas, the college uses this environment to involve students in many issues of urban life. Students also are actively involved on campus in the major decision-making bodies which develop academic as well as student life policies.

Enrollment has risen to 1,280 students who come from 27 states, the District of Columbia, and six foreign countries. As enrollment has continued to rise, the college has responded by adding new faculty positions each year and is in the process of completing an expansion program, including seven new buildings. Approximately 40 percent of the college's graduates enter either graduate or professional studies. Virginia Wesleyan graduates are distinguishing themselves in their professions and their communities.

Much of the strength of the institution resides in its nationally recruited faculty, 75 percent of whom hold doctorates or other terminal degrees for their teaching fields. The College places emphasis on excellence in teaching and on close student-faculty relationships. The student to faculty ratio is 16 to 1. Faculty members are encouraged to maintain an interest in research and study. Independent programs of study provide students with the opportunity for individual research. An honors program includes the selection each year of 10 outstanding freshmen as Wesleyan Scholars.

Students may choose a divisional major in the humanities, social sciences, or natural sciences and mathematics, or they may select a departmental major in one of the following specific disciplines: art, art education, biology, chemistry, communications, computer science/mathematics, English, mathematics, modern foreign languages (French, Spanish and German), music, philosophy, recreation/leisure services, political science, psychology, religious studies, sociology and theater. Inter-divisional majors are offered in American Studies, human services, international studies and management/business/economics. Successful completion of any of these programs leads to the Bachelor of Arts degree. Special advisors are available to students interested in pre-law, pre-medicine and pre-theology. There are state approved programs in elementary and secondary education for students seeking certification as teachers.

Virginia Wesleyan College believes that educational institutions must remain relevant to the changing needs of students. Consequently, there is an institutional emphasis upon constant re-examination and experimentation.

Washington and Lee University

In 1749, Scotch-Irish pioneers founded a small classical school near what is now the city of Lexington. In 1776 the institution was named Liberty Hall, and in 1782 it was chartered by the Virginia Legislature as Liberty Hall Academy. In gratitude for financial support received from George Washington, its trustees changed the name to Washington Academy in 1798 and to Washington College in 1813. Robert E. Lee served as president from 1865 until his death in 1870, whereupon the institution became Washington and Lee University.

Washington and Lee University is relatively small (1,995 students in 1989) and privately endowed. It offers undergraduate education in the liberal arts and sciences, and, since 1866, professional education in law. The university confers Bachelor of Arts, Bachelor of Science, and Juris Doctor degrees.

Washington and Lee University is involved in instruction, research and public service activities. In its undergraduate divisions—the College and the School of Commerce, Economics, and Politics—some 80 percent of its effort is in instruction, 10 percent in research, and 10 percent in public service. There is no plan to modify this balance.

In the School of Law, the ratios for instruction, research and public service are approximately 70, 20 and 10 percent, respectively. The Frances Lewis Law Center, an integral part of the School of Law, began its operations in 1978, stimulating and supporting research in law reform.

At the undergraduate level, Washington and Lee offers courses and majors in 34 academic disciplines. In addition to majors in the traditional arts and sciences, majors are also offered in business administration, journalism and communications, computer science, and a variety of interdisciplinary studies. Courses, but no majors, are offered in area studies, and engineering. The University has cooperative programs with several engineering schools through which students acquire a Bachelor of Arts or Bachelor of Science degree at Washington and Lee and later, an engineering degree at the cooperating institution. There is no plan for graduate programs other than the program in law.

During the next ten-year period, the University expects to increase its emphasis and support in the areas of fine arts, journalism and communications, computer and information sciences, and interdisciplinary studies.

The university considers itself a national institution and attracts students in significant numbers from throughout the nation. However, because of the number of Virginians enrolled (20 percent in 1989) and its many close associations within the state, it looks upon Virginia as its primary area of service.

For many years an all-male institution, Washington and Lee now enrolls men and women in both its law school and its undergraduate programs. Virtually all students are full-time. The atmosphere is residential, although a majority of the students live in private accommodations in the community.

Washington and Lee University recently completed the renovation of its historic front campus, which was listed in the National Register of Historic Places in 1972. With the completion of the Gilliam Admissions House, in use since 1987, all historic buildings at the university have been renovated. Gaines Residence Hall, completed in 1987, houses 249 students. Under construction is the Lenfest Center for the Performing Arts which, when finished, will house a 475-seat theatre, an experimental theatre, faculty offices, and a lobby that also will serve as an art gallery.

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